TEACHERS' EXPERIENCES IN ENGAGEMENT WITH PARTNERS IN ENVIRONMENTAL AND SUSTAINABILITY EDUCATION

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Abstract

This thesis is an assessment of how Canadian teachers and principals engage with organizational, business, corporate, and individual partners to enhance environmental and sustainability education (ESE) practice in K-12 schools. The research of this thesis was drawn from data collected for a national comparative case study by the Sustainability and Education Policy Network (SEPN). This thesis study analyzed interview transcripts, numerical ratings, and survey questions. Conclusions were drawn through the comparison of teacher comments and ratings to current education policy regarding partnerships in their regions. Results suggested the influence of policy or lack of policy on practice in a variety of contexts. Data showed most teachers and principals mentioned a specific partner by name when discussing their ESE teaching, implying that partnering with out of school entities is common practice despite little to no policy guiding partnership activities. Teachers tended to mention more partners by name in rural divisions when compared to teachers in urban settings. Some teachers were 'super-connectors,' noting far more partnerships than others. Results suggest that teachers tend to be the primary initiators of ESE school-based partnerships. A wide variety of partners were mentioned, but non-governmental organizations (NGOs) were by far the most prevalent. There was also a great diversity in the activities and outcomes resulting from partnerships, though a common theme was that partnerships allowed for lessons that were experiential and regionally specific. This thesis concludes with suggestions for teachers who desire to work with organizations, and recommendations for policy makers regarding how policy could better facilitate and optimize partnerships in furthering environmental and sustainability education.

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Chapter 1: Introduction

The idea of public schools' teachers making deliberate connection with the broader community is not new. John Dewey communicated the value of connecting education to the world outside the classroom in the early 1900s, writing:

> A primary responsibility of educators is that they not only be aware of the general principle of the shaping of actual experience by environing conditions, but that they also recognize in the concrete what surroundings are conducive to having experiences that lead to growth. Above all, they should know how to utilize the surroundings, physical and social, that exist so as to extract from them all that they have to contribute to building up experiences that are worthwhile. (1938, p. 35)

Today, teachers are finding new ways to connect their lessons to the world outside the classroom. Though not often necessitated, specifically encouraged, or clearly guided by policy, many teachers pursue the goal of authentic and meaningful education by forging connections with partners.

The research of this thesis focused on teachers' perceptions of their relationships with a variety of partners in their efforts to advance the objectives of environmental and sustainability education (ESE) in their classrooms. The introduction of this thesis proceeds to offer a brief history and definition of ESE. Also included is a description of what can be offered through educational partnerships, and a description of educational policy. Next, the introduction offers an outline of the research intention and guiding questions of the thesis. The research of this thesis was drawn from data collected by a national study of the Sustainability and Education Policy Network (SEPN), and as such, the Network and overarching SEPN project is also introduced. Following the introduction, a literature review offers a summary of current academic writing and Canadian education policy documents regarding partnerships in ESE. Arguments by researchers and public education organizations for the advancement ESE through partnerships are summarized, along with examples of successful partnerships. The literature review goes on to address words of caution put forward by scholars regarding the negative impact that partners may have on ESE, and summarize the case for policy to guide these partnerships. Canadian educational policy documents were also reviewed to provide context for the remainder of the thesis. In the next chapter the methodology of the research is addressed, explaining how an

interpretivist paradigm and critical theory combine as a framework for this work. The methods of the comparative case study from which the data of this thesis were drawn are outlined. Methods for the collection of the data utilized in this thesis included interviews and two types of surveys. The findings section summarizes the relevant qualitative and quantitative data that were gathered from these sources. Findings are organized to compare partnership practice by interviewee type, geographical region, and partner type. Descriptions are synthesized of how partnerships are initiated, what activities are carried out, and what outcomes result. Instances of struggle with partnerships are identified, as well as suggestions for how policy can address these difficulties. These findings are brought together and tied back to the literature to form the arguments of the discussion section. The discussion also includes implications for educational policy, practice, and future research.

1.1 Environmental and Sustainability Education

Over the past 50 years, a variety of terms have been used to communicate different priorities and values when teaching about the environment. The term environmental education (EE) was the first to gain popularity in the 1970s after the American Environmental Education Act became law. This was in response to a study conducted in 1970 from the National Science Teachers Association that identified a need for curriculum development in this area (Carter & Simmons, 2010). Environmental education carried with it the concept of "environmental literacy," described by former United States President Nixon as "a new understanding and a new awareness of man's relation to his environment" (Carter & Simmons, 2010, p. 7). The term 'sustainable development' is typically traced to its use in the 1987 Brundtland Report, where it was defined as "development that meets the needs of the present without compromising the ability of future generations to meet their needs" (World Commission on Environment and Development, 1987, p. 16). Later this was explicitly engaged in education through the UNESCO Decade for Education for Sustainable Development (ESD) from 2005 to 2014. UNESCO (2017) suggests that, "ESD empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity" (para. 1). Critics of ESD point out its move away from the focus on environment to a more anthropocentric view of the uses of environment for human benefit, and express concerns that the social and economic aspects of sustainable development may overshadow efforts to understand ecology and care for the environment (Kopnina, 2011).

Other terms that have evolved to emphasise a variety of values in this field are ecojustice education, education for sustainability, and place-based education. For the remainder of this thesis, I have chosen to use the term environmental and sustainability education (ESE) as an umbrella term in order to draw from the ideas put forward by each of these domains.

Many researchers have identified that ESE in public education is a valuable component of an organized response to environmental challenges. Wals and Benavot (2017) explain, "With the rapid decline of the Earth's biocapacity and a related rise in concern for environmental sustainability, many view education as critical in the transition to more sustainable forms of development" (p. 406). The United Nations committed a decade (2005 – 2014) to focus on education for sustainable development, recognizing that "education is a motor for change" (UNESCO, 2005, p. 3). The Canadian Environmental Grantmakers Network (2006) explains that weaving environmental education into public education is important because, "moving society towards sustainability cannot rest only with 'experts', but will require support and active participation of an informed public in their various roles as consumers, voters, employers, and business and community leaders" (p. 4). However, a 2010 poll of 459 Alberta youths indicates that their "knowledge of environmental action and their reported level of participation in public action is markedly low" (Alberta Teachers' Association, 2010, p. 1). Alberta Teachers' Association president Carol Henderson responded by saying, "We owe it to our young people to create more opportunities for hands-on learning that actually means something to them and to society" (ATA, 2010, p. 1). The push for ESE remains relevant and should be a priority for all involved in the decision making of what and how to teach today's youth.

The primary goal of ESE is to create a more environmentally conscious society by influencing students to consider how their choices and actions impact the future of life on the planet. Tilbury and Wortman (2004) created a framework identifying core components of education for sustainability summarized as:

- Imagining a better future – to engage in meaningful interpretations of sustainability to provide direction and foster motivation.
- Critical thinking and reflection – to examine the power structures at play in the surroundings.
- Participation in decision-making – to take part in acting in diverse groups and place value on local knowledge.

- Partnerships – to combine resources and talents and build communities of support
- Systemic thinking – to see how large systems are constructed of interacting small parts and cultivate a sense of place and value.

According to these authors, the ultimate goal of this type of education is for learners to adopt an ethic of justice in regard to human and non-human entities, develop a sense of empowerment as active citizens, and acquire skills that will be necessary to solve the environmental, social, and economic problems of an uncertain future.

Current research argues that ESE must strive to be transformative in nature. For example, Chandra (2014) argues that it is a Western materialist worldview and consumerist lifestyle that has led to the commodification and degradation of the natural world (p. 117). Amid the spreading neoliberal and anthropocentric tendencies of dominant culture, many educational programs unintentionally continue to separate students from nature by reinforcing dualism between human and other (Barrett et al., 2017, p. 132). There is a theme in ESE scholarship that effective sustainability education must move beyond learning facts about the environment to embrace a goal of transformative sustainability education to address underlying societal norms and their ecological implications (Barrett et al., 2015; Harmin et al., 2017; Lange, 2018; Howard, 2008). Williams (2018) defines transformative sustainability education as, "pedagogical approaches aimed at deep relational shifts in consciousness and being" (p. 346). O'Brien and Howard (2016) write that this means education must share a unified vision to promote well-being for all, inclusive of global humanity and more-than-human entities. They go on to explain that "It may well be that sustainability education cannot flourish within a traditional education environment that tends to reinforce conformity and suppresses the creative, real-world opportunities for students (and teachers) to experience themselves as both choice-makers and change-makers" (O'Brien & Howard, 2016, p. 4). Educators are encouraged by this research to think critically about the educational systems in which they were raised in order to help students see the world around them in new ways and transform the predominant paradigms of modern society.

1.2 Educational Partnerships

Educators come together with out-of-school partners to offer richer learning experiences to their students. Partnerships have the potential to offer "expanded learning opportunities inside and outside the school building that support the core curriculum and enrich students' learning

experiences" (Blank & Villarreal, 2015, p. 6). Through partnerships, students are able to engage in real world projects and contribute to work that is valuable beyond the walls of the classrooms. Blank and Villarreal (2015) explain, "These experiences engage young people in real-world problem solving around issues of critical concern to students, families, and their neighbourhoods" (p. 7). The type of support provided by a partner depends on each specific relationship but may include involvement in special events, human resources in the form of volunteers or tutors, influence and advocacy, the provision of information, the development of teaching resources, special programs or guest speakers, direction in working toward a goal, in-kind contributions, supplies, and money, though this list is not exhaustive (Potter, 2012). Nathan (2015) writes that the ultimate goal of a school-community partnership should be to enter a state of collaboration "where both organizations grow, change, and find mutual benefits and success over time" (p. 62). In a rapidly changing world scholars are coming to the conclusion that, "the success of young people depends not just on their academic achievement but on their cognitive, social, emotional, physical, and ethical growth, as well as their civic participation" (Blank & Villarreal, 2015, p. 5). If a goal of education is to foster the growth of healthy and active citizens, educational partnerships have a significant role to play.

1.3 Educational Policy

Educational policies are defined as "principles and actions … designed to bring about desired goals" (Trowler, 2003, p. 94). Policies are not limited to formal texts, but are enmeshed in "contexts and consequences influencing their development and enactment" (McKenzie, Bieler, & McNeil, 2014, p. 319). In other words, education policies are not inert documents, but rather are a collection of "processes, as diversely and repeatedly contested and/or subject to different interpretations as it is enacted" (Ball, Maguire, & Braun, 2012, p. 2). There is no clear dividing line between policy and practice, as they continuously inform and influence one another. Ball, Maguire, and Braun (2012) go on to say that though many education policies are created by government ultimately, education policy is "done by and done to teachers; they are the actors and subjects, subjects to and objects of policy" (p. 3). As such, much can be learned about how policy plays out at the ground level by investigating the perceptions that teachers and principals have regarding ESE practice in their schools and classrooms.

1.4 Research Intention and Questions

This thesis focuses on the perceptions of Canadian teachers and principals regarding their

engagements with partners in K-12 ESE. The goal of the work is to inform future educational policy and practice. This work centres on teachers, as they make decisions about how curriculum is enacted at the classroom level, and how learning is structured for their students in relation to engagement with partners. Data from principals were also considered, as they are able to offer insight how policy is communicated to teachers and how it may inform their practices. Guiding research questions include:

- How do teachers perceive partnerships based on their descriptions of them?
- What supports do teachers identify as being offered by these partnerships?
- What struggles do teachers encounter when engaging in partnerships?
- What kinds of outcomes do teachers perceive as resulting from the partnerships in terms of societal impact and student learning?

The answers to these questions were compared to the ESE policy context of each site, and differences are noted between sites. Answering these questions provided the insight necessary for the thesis to conclude with useful recommendations for policy makers and teachers in their consideration of how partnerships can enhance their ESE policies and practices.

The work of this thesis was carried out in connection with the Sustainability and Education Policy Network (SEPN). SEPN is a Social Sciences and Humanities Research Council of Canada (SSHRC) funded collaborative partnership between academic research institutions and national/international organizations, currently investigating the relationship between sustainability education policy and practice in kindergarten to grade 12 (K-12) and post-secondary education (PSE) in Canada (2012-2020). The research of this thesis was drawn from K-12 data that were gathered in this study from twenty schools, representing ten school divisions in six different provinces.[1] This comparative case study conducted by SEPN offers a snapshot of ESE policy and practice in a diverse range of contexts from across Canada.

[1] Canada is comprised of 10 provinces and 3 territories. For the remainder of this thesis all 13 provinces and territories will be referred to as provinces.

Chapter 2: Literature Review

This literature review examines academic literature and national policy regarding partnerships in ESE. It begins with a review of current research. Following the academic section is a review of Canadian ESE policy from the six provinces that were studied for this thesis. This section begins with a defense for the value of strong policy in the guidance of ESE practice, along with descriptions of how ESE policy is currently lacking. Descriptions of regional policy contexts are based on a document collection that was carried out in the first phase of SEPN's national study, the process of which is described. Policy documents were reviewed to assess how they guide (or fail to guide) partnerships in ESE. The components of this literature review come together to offer a picture of the current opinion, policy, and practice of partnerships in Canadian ESE.

2.1 Review of Academic Literature

This review of academic literature summarizes scholarship that connects partnerships to ESE. Literature that promotes the inclusion of partnerships in ESE is summarized, and documented partnership examples demonstrate what partnerships can contribute to ESE programs. Words of warning from scholars regarding relationships between teachers and outside organizations are also addressed. A summary of literature that argues for ESE policy to include guidance in partnerships is also offered. The section concludes with a description of how this thesis addresses areas in which published research is currently lacking on this topic.

2.1.1 The value of partnerships in ESE. A range of literature suggests that teaching ESE requires more than including environmental and sustainability content in a teacher-focused, lecture-based classroom setting. For example, Hill (2002) notes that early in the rise of ESE it was pointed out that "environmental education must be more than nature study, conservation, or resource management – it had to be linked to practical problem finding and problem solving" (p. 186). Similarly, UNESCO (2017) identifies that Education for Sustainable Development pedagogy requires "designing teaching and learning in an interactive, learner-centered way that enables exploratory, action oriented and transformative learning" (para. 3). Jensen and Schnack (1997) emphasize the importance of action in ESE, arguing "the aim of environmental education must be to make present and future citizens capable of acting on a societal as well as a personal

level" (p. 164). To provide students with meaningful ESE programs, teachers can create meaningful real-world scenarios to potentially increase student efficacy and empowerment, and lead them to take action in their own lives. Similarly, principals have been described as the "gatekeeper of change" in a school (Fullan & Stiegelbauer, 2001, 144) and as such have a significant role to play to ensure best practice is adopted in their schools.

According to the literature, authentic learning is a critical concept in ESE. Nicaise, Gibney and Crane (2000) identified that authentic education bases learning in real world situations, includes students in deciding the trajectory of learning, and emphasises learning that takes place through problem solving and discovery. Laur (2013) defends the value of authentic learning arguing, "Students in today's classroom must be presented with complex problems and challenges to solve. These challenges are action oriented in nature … (and) revolve around open-ended, real-world questions that promote critical thinking" (Laur, 2013, p. 5). In ESE, authentic styles of education are especially important. Riordan and Klein (2010) point out that authentic experiences help learners, "realize connections and patterns, raise questions, and act on the values of sustainability" (p. 134). They go on to explain that, "sustaining the environment relies on students becoming problem-solvers, critical-thinkers, and ultimately, change-makers (Riordan & Klein, 2010, p. 135). These characteristics are required by citizens to be capable of challenging the status quo with new systems, and can be practiced and trained in students through well-designed authentic learning opportunities.

Literature in the field of ESE argues that action learning is made most authentic when rooted in the real situations of a local community. Wals and Benavot (2017) write that "education for sustainability and environmental stewardship should provide opportunities for learners to become part of multi-stakeholder platforms and multi-level coalitions involving diverse actors, values, interests and strategic alliances" (p. 408). Gruenewald and Smith (2008) agree and point out that student learning that draws attention to the local places also leads to, "knowledge and patterns of behaviour associated with responsible community engagement" (p. xvi). The North American Association for Environmental Education articulates that students must not only acquire skills, but also understand how and when to use them to ensure a high quality of life and environment in the future. They state, "for most learners, personal commitment begins with an awareness of what immediately surrounds them" (NAAEE, 2004, p. 5). Likewise, Hart and Nolan (1999) reviewed culturally and geographically varied studies and

found that community-based, non-formal ESE initiatives have "influenced and promoted individual environmentally responsible behavior." The sense that one is connected to a place and community has the potential to lead a person to consider and change their behavior and actions.

Partnerships offer many advantages for teachers of ESE. For example, Mayes (2010) identifies that intended benefits of partnerships can include the provision of research-based information and resources, activities to encourage active and outdoor learning experiences, and funding through grants for projects that promote environmental learning. Hands (2005) describes that unintended benefits may also result from partnerships and may include positive publicity for the school or program, increase in the networks and social capital of students, and the opportunity for citizenship learning as students were challenged to examine the world outside the classroom (p. 80). Partnerships established between educators and other groups or individuals have the potential to engage students in meaningful action oriented ESE.

2.1.2 Partnership success stories. Literature also provides abundant examples of success stories of these types of interactions from early childhood education (Lowenstein & Smith, 2017) to secondary (Gebbels, Evans, & Delany, 2011). Lowenstein, Martusewicz, and Voelker (2010) describe activities that resulted through community partnerships involving the Southeast Michigan Stewardship Coalition as a facilitator to establish points of connection between teacher teams and local community partners to address ecojustice issues with inquiry and problem-based lessons. A variety of activities resulted from these partnerships, and participants in these activities described the learning as incredibly powerful, engaging, and empowering. Ferriera, Grueber, and Yarema (2012) describe another specific example from Detroit in which a partnership between a university, a school district, and a community organization led to the development of outdoor classrooms. This project also facilitated connection with other local businesses to assist with maintenance over the summer break. It was noted in this case study that ESE initiatives are often supported by partnership grants and curricular supplements. The authors of the study point out that, "when schools develop and cultivate relationships with other organizations and institutions in the community, their circle of connections widens, leading to future collaborations" (Ferriera, Grueber, & Yarema, 2012, p. 59). The benefits of partnership in ESE are important to recognize so that these types of connections are not disallowed by over-cautionary guidance.

The theme of community building is a prominent value in ESE literature, and partnerships are seen to positively contribute to this effort. For example, Forsyth, van Vugt, Schlein, and Story (2015) found that a strong sense of community is associated with increased environmental engagement and that "pro-environmental behavioral intentions were stronger when identity was more localized" (abstract). Eckert, Goldman, and Wenger (1997) describe the value of the development of a "community of practice" that reaches outside the school in which "United by a common enterprise, people come to develop and share ways of doing things, ways of talking, beliefs, values - in short, practices" (Eckert, Goldman, & Wenger, 1997, p. 3) In this way, the students are not the only engaged learners in a project, and others involved may experience valuable learning opportunities through their participation. Eckert, Goldman, and Wenger (1997) go on to note that those involved develop a strengthened sense of community through the process of offering their skills and opinions. If the primary objective of ESE is to motivate change for a more sustainable future, then partnerships between schools and partners could play a valuable role.

2.1.3 The Need for Caution in Partnerships. Though partnership successes are highlighted in literature, and much is written to encourage teachers to engage with out of school partners, literature also warn that this may open the door for organizations to reach into the classroom and have the potential to influence the direction of learning (Hodgkins, 2010a; Lapp, 1994; Molnar, 2001; Manteaw, 2008). The minds of society's children and youth will direct its future, and as such many groups and organizations desire to influence how those minds are shaped to "ensure that their view of the world is reproduced" (Huckle, 2013, p. 209). Sleeper (1993) argues that "everyone from advertisers of consumer products to special-interest groups have looked toward the classroom as fertile ground for developing young minds in ways that they see fit – for better or worse, depending upon whom you ask" (p. 1). In his work Hodgkins points to the Canadian example of Alberta's oil sands and its influence in Canadian schools. He examines and critiques educational resources created by Inside Education, a non-profit funded primarily from the oil multi-national companies, along with others with stakes in resource and energy industries (Hodgkins, 2010a). A wide variety of private interest groups could see a potential to further their private objectives by communicating messages to youth within the public school system.

In other cases, the motivation for a private or special interest group to engage with a school may not only be to further their agenda in the classroom, but also to improve their social reputation. For example, the Canadian Teachers' Federation & Canadian Centre for Policy Alternatives (2006) point out that part of a corporate strategy may be to improve their image or brand by assisting a school, when in reality they may be "taking advantage of an underfunded, overworked school system" (p. 23). Manteaw (2008) explains that "more than ever before, public awareness of the impact of corporate activities on the environment has increased, and communities compel firms to account not only for their financial bottom lines but also for their social and ecological performances" (p. 122). In this case again, the partner might use a relationship with a school to advance their own goals. Partnerships are inherently complicated as multiple parties bring their own ideologies and goals to the relationship. Teachers and principals could benefit from supportive guidance regarding how to engage with partners to avoid pitfalls.

Related to the potential dangers of partnerships, scholars identify that we are living in a unique phase of capitalism referred to as neoliberalism. Writing in the post-secondary context, Davies and Bansel (2007) describe neoliberalism as "characterized by the transformation of the administrative state, one previously responsible for human well-being, as well as for the economy, into a state that gives power to global corporations" (p. 247). Facets of neoliberalism include reduced funding of the commons, including education, and deregulation of private businesses and corporations. Manteaw (2008) points out that the result can be an increase of private interests influencing school practices and educational decisions. He also points out that the "current neoliberalists' and capitalists' agenda, particularly as they relate to formal schooling, contradicts the ideals of education for sustainable development" and warns that "if corporate social responsibility is a business' contribution toward sustainable development, then its pedagogical imperatives must be critically explored" (Manteaw, 2008, p. 1). Most dangerously, through a neoliberal lens "Pupils are seen as human capital to be prepared for a neo-liberal world as self-sufficient individuals, flexible workers, lifelong learners, and calculating and risk-bearing consumers" (Huckle, 2013, p. 209). These and other researchers caution educators pointing out that opening doors to partnerships between educational institutions and organizations has the potential to invite in paradigms and attitudes that oppose the core values of ESE.

Literature warning of partnerships with organizations points out that modern capitalist ideologies are often "rendered invisible, and so neutralized in schools," including through

partnerships (Huckle, 2013, p. 209). It has been noted that even pro-sustainability messages may miss the mark and that often, corporate curricula neglect the value of living simply and avoiding overconsumption (Lapp, 1994). Manteaw (2008) gives the example of sponsored recycling initiatives, which "may provide learners the space and opportunity to reflect on ways to take action, but fail to provide opportunities for learners to critically examine the social and economic dynamics of consumerism and the possibility of reducing consumption" (p. 122). In this way "corporate presence in education gets normalized and legitimized to the point that educators can become staunch champions of these mercenary Trojan horses" (Hodgkins, 2010b, p. 2). Hill (2002) also points out that because of the wide spread nature of neoliberalism in our modern society, "Right wing discourses, defined as those that support conservative/traditional values, free enterprise, capitalist expansion, individualism, and religious fundamentalism, are seldom explored" (p. 182). This presents a problem, as a key tenet of ESE is the critical examination of our consumerist lifestyles and choices (Van Koppen, 2009). Thus, the influence of private interest groups may limit the efficacy of ESE, even when their intentions are good.

In other situations, partners are more intentional about their impact on student learning. In some cases, direct or indirect advertising and market research have found their way into public schools (Larson, 2002, p. 2). Klein (1999) argues that as advertising goes relatively unregulated "Corporations are no longer content with simple logo branding, but are now fighting for their brands to become not the add-on but the subject of education, not an elective but the core curriculum" (p. 89). If the goal of ESE is to foster the development of critical active citizens, the primary values and objectives of business and industry are most often counter-productive.

2.1.4 ESE and partnership policy. Teachers and principals must make decisions on a daily basis regarding what and how their students are taught. As Coburn (2001) writes, "Teachers work by nature involves action" (p. 162). Similarly, Davies and Davies (2004) describe the role of a school principal includes the translation of strategy into action, and aligning people and organizations (p. 30). Research shows that when policy is lacking, and is unable to give clear direction, teachers tend to make these decisions independently. Coburn goes on to write that teacher practice is informed significantly by interactions outside of formal organizational structures and that when policies are lacking, teachers are more likely to reach to external sources with a less critical eye. She concludes that, "nonsystem actors are a powerful yet not entirely controllable mechanism for reaching teachers" (Coburn, 2001, p. 44). Because these

nonsystem actors enter partnerships with their own motivations, precautions should be taken in these types of engagements to safeguard desired educational goals and values. To ensure that content and pedagogy of ESE is directed by those trained to do it best and those without private interests to promote, clear policy seems required.

Unfortunately, it has been documented that policy is lacking in the field of ESE in general. The Canadian Environmental Grantmakers Network (2006) points out that ESE curriculum and policy vary greatly between the provinces and territories. They state that "Most, if not all, provincial/territorial curricula include either goals or language relating to environmental education - to a greater or lesser degree. However, almost all provinces/territories lack a coordinated approach to the development and advancement of environmental education" (CGEN, 2006, p. 3). In cases where ESE curricular guides are present, most only offer suggestions for how to address ESE themes in other subjects.

Education policy is especially inadequate in the guidance of school and community partnerships (Crowson & Boyd, 2001; Sanders 2001). In a census of sustainability policy initiatives in the elementary and secondary education systems of Canada, community outreach was the domain receiving the least amount of focus in policy (Beveridge, McKenzie, Aikens, & Strobbe, 2019).[2] In this study, Manitoba was the lone province producing sustainability documents specifically focused on community outreach and engagement, and only 6% of school division documents from across Canada dealt with community outreach at all (Beveridge, McKenzie, Aikens, & Strobbe, 2019). According to the Canadian Teachers' Federation and Canadian Centre for Policy Alternatives (2006), several provinces have left decisions regarding corporate presence and private levels of finance in schools up to individual school boards.[3] Hands (2005) also points out that "there is a lack of information regarding the procedures of identification, development, and maintenance of partnerships used by schools that are successful at creating these connections" (p. 65). Not only could this insufficiency keep teachers and principals from engaging in partnerships, but also practitioners of education who do attempt to

[2] The five domains of this census were governance, facilities and operations, curriculum, research, and community outreach.

[3] School boards consist of elected local representatives who ensure division goals and decisions reflect the desires of the local community.

enrich their teaching by reaching out to organizations and businesses may feel they are left to their own devices. The idea that ESE policy is lacking, especially with regard to partnerships, is substantiated by the review below of Canadian provincial and territorial education policy documents.

The lack of clarity regarding beneficial and harmful partnerships is suggested by the literature to necessitate the adoption of guidelines at the policy level. Molnar (2001) identifies this need arguing, "It is now time for policy makers to take a more critical look at the purpose and impact of many types of corporate-school relationships and to decide what form of oversight is necessary to ensure that public schools continue as an expression of democratic values rather than corporate interests" (p. 1). Similarly, Hodgkins (2010) states that "An inventory and assessment of corporate involvement in schools is needed, including a comparative analysis involving other provinces and territories in Canada and abroad, in order to ensure bias-balanced perspectives are being presented" (p. 288). This thesis addresses the concerns put forward by these academics through analysis of partnership practices in six unique policy contexts.

2.1.5 The research gap. Weighing the benefits and risks of educational partnerships makes it clear that a grey area exists between partnerships that assist in the pursuit of ESE goals and objectives, and those that are compromised by the motivation of businesses and other organizations to meet their own objectives. A weakness of current academic literature is that most studies of teacher engagement with partners either focus exclusively on the benefits of a particular situation, ignoring the possible negative impacts, or focus on the harms of a specific case, without addressing the positive outcomes. As such, many papers encourage partnership without words of caution, or offer such strong words of warning that educators may steer clear of partnerships altogether. There is also a clear trend that articles encouraging interactions are regarding those with non-profit organizations, while those that discourage interaction refer to corporate, business, and industry parties. It is easy to see however, that the space between the two can be grey, as cause-based organizations and non-profits are often funded and influenced by big business (Gray & Kendzia, 2009), and more sustainable business models are on the rise (UNCTAD, 2017). The line is also blurred when we attempt to justify whose ideologies should be promoted in a school, or if one group is allowed to influence students, why another should be turned away. This thesis is an investigation of both the advantages and disadvantages of a wide variety of partnership situations. The scope of the current study is thus broader than previous

work in the field of ESE on the topic of partnerships. Again, the opportunity to explore partnership practices, successes, and struggles from a diverse range of contexts allows for the consideration of how policy could encourage and facilitate partnerships, while ensuring ESE principles are safeguarded.

Academic literature regarding partnerships in ESE is plentiful with regard to isolated case studies, but also has a gap in a lack of cross case comparisons. Miles and Huberman (1994) point out that "by looking at a range of similar and contrasting cases, we can understand a single-case finding, grounding it by specifying how and where and, if possible, why it carries on as it does. We can strengthen the precision, the validity, and the stability of the findings" (p. 29). This research also addresses this gap in current research, as it draws on data from ten school divisions from across Canada to enable comparative examination of how the relationships between educators and partners play out in a variety of contexts.

Scholars have already constructed guidelines for teachers and principals concerning engagement with organizations. Instances in which guidelines are offered tend to have been informed by research focusing on the negative aspects of partnership. As such, they seem to present concern about advertising, marketing, and the promotion of neoliberal ideologies that counter the direction of transformative sustainability education. Molnar (2001), for example, lists a series of questions that could be asked by policy makers regarding involvement of organizations, businesses, and corporate entities in schools. The list includes a challenge to consider the principles promoted by the partner, whether they align with school goals, and how sponsored educational materials are reviewed and by whom. Huckle (2013) reminds educators and policy makers that all potential partners should be proven to wholly promote citizenship education, emphasizing social agency, justice, and envisioning of sustainable futures that transcend our current ways of living. It is good for partnerships to be entered cautiously, however it is also important that policy guiding partnerships not be restrictive in nature and limit the value of partnership activities. Involving a wide variety of teachers, principals, and regions from across a vast and diverse country, this study highlights both successes and struggles of partnerships occurring in a broad scope of contexts. The research of this proposed thesis will examine a variety of cases of partnerships to tease apart the benefits and threats to ESE and identify and address possible conflicts. The goal of this work is to offer a set of guidelines that promote and facilitate healthy partnerships to further the goals and ideologies of ESE. It should

also be noted that academic work to create recommendations on the topic of partnerships in ESE has not been conducted in Canada. Recommendations from American and European scholars are helpful, but may not reflect the state of public education in Canada. This study offers insight and conclusions specific to Canada as it is based on the current state of opinion and practice in this country.

2.2 Review of Policy Documents

A review of policy documents is included in this literature review to provide context for each of the studied sites. A description is offered of how these documents were collected in the first phase of SEPN's national research project. The review was completed to identify instances in which partnership activities were highlighted or cases in which guidance was offered regarding how to engage with partners. Policy documents from Ontario, Manitoba, and British Columbia mentioned partnerships in ESE to some degree. The findings from each of these provinces are outlined in the remainder of this chapter.

2.2.1 Collection and review of documents. Given that this thesis draws on the research conducted by SEPN's national research project, documents collected in that study were also reviewed for findings specific to the subject of this thesis. SEPN began its national research study in 2012-2014 with document collection and analysis of ministry of education policies from all 13 Canadian provinces and territories. Collection procedures are outlined in Beveridge et al. (2019). Reviewed documents included strategic plans, overarching curriculum guides, curriculum, annual reports, and other publications to seek out inclusion of sustainability. School division data were also collected from across the country to identify sustainability policies regarding certification programs, sustainability staff, and signed declarations of sustainability or environmental commitment. These databases were updated in 2015-16.

This document collection was utilized for this thesis to describe the sustainability education policy context of the six provinces that were visited in the site analysis. Instances were identified in which policy directs or celebrates partnership to offer insight regarding each respective setting. Documents were queried for the term 'partner,' which also pulled results for the term 'partnership.' In many instances, mentions of partnerships were not related to sustainability, and as a result these results were dismissed. Curricula and curricular guides with a focus of ESE were read in entirety to seek out what guidance, if any, was offered teachers and school administrators regarding partnership activities.

Mentions of ESE partnership activities were found in policy documents from Ontario, Manitoba, and British Columbia. Instances in which these policy documents addressed partnerships were often descriptions or celebrations of the projects that resulted from partnerships already in place. They offered a sense of openness and enthusiasm toward partnerships. They were, however, not directive in nature, and as such offered little guidance for the establishment and maintenance of future partnerships. In each of these provinces, ESE is intentionally cross-curricular, and each province has its own guide identifying ways in which current curricular outcomes can involve sustainability topics. Even in these curricular documents, which are intended to guide teacher practice, there was little specific direction in the initiation or maintenance of relationships with partners.

2.2.2 Ontario. Documents reviewed from Ontario offer a few examples of partnership successes, and a list of potential partners but give no clear direction on how partnerships are to be initiated or carried out. One document found Ontario entitled *Ready Set Green! Tips, Techniques and Resources from Ontario Educators* celebrates 74 examples of Ontario sustainability goals schools have accomplished (Ontario Ministry of Education, 2007). More than half of these examples mentioned some engagement with an out-of-school organization, foundation, or business. A wide range of partners were found in these highlighted examples, from organizations like UNESCO and EECOM to businesses and corporations like Union Gas and Tim Horton's. The document proceeds to list descriptions and contact information for 36 potential partner organizations. The document offers clear encouragement and a starting place for teachers to connect with partners in ESE, but fails to address any potential concerns regarding partnership activities.

Curricular guidance for ESE in Ontario is offered by the Ontario Ministry of Education through a guiding document to help teachers incorporate environmental education into other subjects. The document *Shaping Our Schools Shaping Our Future: Environmental Education in Ontario Schools* put forward by the Working Group on Environmental Education describes that environmental education:

> Will combine classroom learning with experiential learning, and provide opportunities to interact with, develop caring and concern for, and take action in the places where students live, study, and play. It will provide connections between the curriculum and the world around us, allow students to directly observe impacts and issues" (WGEE, 2007, p. 4).

The document *Environmental Education Scope and Sequence of Expectations* outline Ontario's curricular objectives that have the potential to connect to ESE themes. The guide for grades 9-12 points out that "Some disciplines, by virtue of their content, are more closely linked to the study of environmental topics and issues than others, but all disciplines provide opportunities to incorporate environmental education to some extent" (Ontario Ministry of Education, 2011, p. 4). Likewise, all disciplines have curricular outcomes that could be met through connection to partners if a teacher was motivated to structure their class in this way, however no explicit encouragement exists in these documents for partnerships. In the K-8 guide, there exists a Grade 6 science outcome as follows:

> Analyze a local issue related to biodiversity (e.g., the effects of human activities on urban biodiversity, flooding of traditional Aboriginal hunting and gathering areas as a result of dam construction), taking different points of view into consideration (e.g., the points of view of members of the local community, business owners, people concerned about the environment, mine owners, local First Nations, Métis, Inuit), propose action that can be taken to preserve biodiversity, and act on the proposal. (Ontario Ministry of Education, 2011, p. 48)

This is an example of an outcome that could be made more authentic and engaging through connection with community members or groups, though it is not explicitly suggested.

2.2.3 Manitoba. Examples of environmental and sustainability activities resulting from partnerships are also celebrated in the policy documents of Manitoba. The *Manitoba Education and Advanced Learning Annual Report 2014-2015* includes a section that highlights achievements in the realm of Education for Sustainable Development including examples of partnership programs. Some partnerships mentioned in this document were the funding of ArtsJunktion, Fort Whyte Alive, Envirothon, and Youth Engaging and Sustainability, as well as implementation of the Eco-Globe Schools recognition program (MEAL, 2015a, p. 23). The document *Education for Sustainable Development in Manitoba Education and Advanced Learning* states, "the government is interested in partnering with organizations who want to move the ESD agenda forward" (MEAL, 2015b, p. 2). It goes on to point out that they were involved a partnership with Manitoba Hydro to offer ESD grants to promote sustainability through teacher release time, professional development, and resources for sustainability action projects (MEAL, 2015b, p. 2). The organizations Me to We (Free the Children), Manitoba First

Nations Education Resource Centre, Ducks Unlimited, Oak Hammock March, and Assiniboine Park are also mentioned as partners with Manitoba Education and Advanced Learning organization (MEAL, 2015b, p. 2). Reports of partnerships at the ministry level could be seen as endorsement of partnerships at the division, school, and classroom level as well.

Manitoba policy documents go further than Ontario in providing more explicit encouragement to engage with partners and more clearly articulating the rationale for partnerships in ESE. These documents are still however lacking in clear guidance of how to engage in partnerships. For example the *Guide for Sustainable Schools in Manitoba* identifies the priority of "fostering the development of partnerships in delivering ESD programming to build and enhance a culture of ESD in Manitoba" (IISD, 2011, p. 8) and points to the Manitoba Education for Sustainable Development Working Group that was established to connect government, non-government organizations (NGOs), industry, and community groups to support regional coordination, development, and implementation of ESD across Manitoba. It "invites schools to take a whole-school approach to sustainability by exploring sustainability through curriculum, in addition to through real-life learning experiences" (IISD, 2011, p. 9). The emphasis on real-life learning experiences can be interpreted as encouragement to reach outside the walls of the classroom into the community, however there is no recommendation or instruction for how to set up these types of experiences. In a section titled *Curriculum, Teaching, and Learning* partnerships are identified as one of five guiding principles, though further guidance is vague stating, for example, "Cooperative education supports ESD partnerships with the community," and "Opportunities exist to engage parents and the community in the practice of ESD principles" (IISD, 2011, p. 15). These suggestions may encourage an educator to engage in a partnership, but provide no direction on how to initiate or carry out this type of relationship.

In terms of its documents related to Manitoba curriculum, encouragement seems fairly clear to connect and collaborate with groups and individuals outside the school, though clear direction is not offered. The publication *ESD in Manitoba Curriculum (n.d)* defines the goal of ESD as "assisting our students to develop more sustainable behaviors in their classrooms, schools and communities and are preparing them to be global citizens who are environmentally, socially and economically literate" (Manitoba Education, p. 1). Later, the document describes that ESD, "enables students to become effective citizens and change agents in an unpredictable and complex world and encourages them to work together as they examine diverse viewpoints

and incorporate new knowledge in order to take action" (Manitoba Education, p. 2). The emphasis on community and citizenship in these definitions seems to be in line with the practice of partnerships with out-of-school organizations. The document proceeds to identify current curricular outcomes that could connect to ESE themes, including from K-4 curriculum, "Develop relationships with others and work collaboratively, contribute to groups and communities," (Manitoba Education, p. 4) and from 9-12 curriculum, "Consult with stakeholders/experts, examine alternatives, use system thinking strategies, identify change agents, collaborate with others" (Manitoba Education, p. 13). This is the closest that the Manitoba curriculum gets to encouraging engagement with out of school partners.

2.2.4 British Columbia. Examples of partnerships were also celebrated in publications from British Columbia. For example, the *Sustainability Framework for the Vancouver School Board* identified a partnership between the Vancouver School Board and UBC to implement the program "Think & Eat Green @ Schools" and adoption of a "Workplace Conservation Awareness Program" in partnership with BC Hydro (Millsip, 2010, p. 7). Also from British Columbia, the *Carbon Neutral Action Report* points out that grants from the City of Vancouver and Province of British Columbia assisted in the installation of electric vehicle charging stations at two schools (VBE, 2013, p. 6), and highlights a partnership between the Vancouver Board of Education and the Vancouver Parks Board resulted in the planting of fruit trees at over 30 school sites (VBE, 2013, p. 7).

British Columbia's curricular guides come the closest to offering guidance for partnerships. British Columbia has a *Sustainability Course Content Framework*, with modules that might be used to create an entire independent course, or selected and separated to enmesh with other courses. Only in the last module of this framework is there reference to connecting with organizations outside the school. In doing so there is encouragement to "identify resources and organizations to help bring about environmental change in schools and communities" (British Columbia Ministry of Education, 2010, p. 7). The British Columbia document *Environmental Learning and Experience Curriculum Maps: Environment and Sustainability Across BC's K-12 Curricula* recognizes potential partners as a key audience of the document. The authors explain:

> For community organizations interested in meeting the needs of teachers and learners in the public system, the ability to match your program and resource offerings with

> provincial curricula is essential. With a stronger sense of the ELE and emergent curriculum connections, community organizations can also enhance their outreach and marketing to teachers and community members. (British Columbia Ministry of Education, 2009, p. 11).

The end of this document also provides a list of "networks of support" which could act as a starting point for a teacher or administrator looking for resources or a point of connection outside the school as they engage in ESE topics.

The clearest direction for teachers to engage with partners in ESE comes from the British Columbia document, *Environmental Learning and Experience*: *An Interdisciplinary Guide for Teachers.* This document emphasizes the importance of exploring "relationships linking individuals, societies, and natural surroundings" (British Columbia Ministry of Education, 2007, p. 6) and continues with the prompt that "Canadians of all generations and from all sectors of society should be given opportunities to engage in environmental learning within and beyond the classroom walls, where critical questions can be asked and a sustained and meaningful dialogue can take place" (British Columbia Ministry of Education, 2007, p. 6). The invitation for involvement with out of school partners is clear, however no further direction is offered for how these 'opportunities' should come about or be carried out.

2.2.5 Conclusion. The ESE policy documents that were reviewed in this section demonstrated that teachers and principals in the studied provinces are encouraged to partner with out of school organizations, but are given little direction in doing so. Available documents promote the idea of partnerships through the celebration of examples. Educators who take up this encouragement, however, are offered little to no guidance in how to initiate contact, set up a partnership plan, or maintain a relationship with a partner to reach ESE goals. No specific advice for principals regarding ESE partnerships was found. Also, at no point was a message of caution or critical planning found for teachers or principals who desire to connect with partners. Curricula misses the opportunity to protect educators and the foundational principles of ESE by giving direction in this area, offering instead more sweeping general statements about the value of community, connection, and collaboration. This review demonstrates the need for research to guide policy in the development of guidelines to serve teachers and principals in their pursuit of partnerships in their ESE practice.

Chapter 3: Methods

The following is an outline of the methodology and methods used in carrying out the research of this thesis. Both were informed by the SEPN national research project, described in the introduction. Interpretivist and critical theory provided a methodological foundation for the data collection and analysis. A comparative case study was carried out, involving interviews, quantitative ratings, and survey questions. Each school involved in the study offered unique examples of ESE policy and partnership practices. Likewise, the variety of methods used to collect the data each offered a different perspective to contribute to an overarching description of policy and practice across Canada. This chapter proceeds to further describe the methodology followed by an outline of the methods used in the collection and analysis of data.

3.1 Methodology

This work was carried out mainly through an interpretivist paradigm. Through this lens, it is recognized that truth is subjective and can be affected by perception (Tuck & McKenzie, 2016, p. 77). As partnerships between diverse parties were examined, it was understood that each enters the relationship with their own perspectives, motivations, and ethical positions. Though each group or individual likely had a common goal, to provide rich learning experiences for students, they each come into partnership with a difference in standpoint and ideology. If clearly communicated, these differences have the potential to offer rich, authentic learning experiences, however conflicting values and perceptions between groups and individuals have the potential to misdirect or minimize the positive effect of the collaborative learning experiences. An interpretivist methodology allowed for the uniqueness of each partnership, each shaped by individuals with their own perspectives, to be highlighted.

Critical theory was also influential in this work. As such the collection and analysis of the data were carried out with an understanding that "reality is structured by arrangements of power that require social change" (Tuck & McKenzie, 2016, p. 77). The resulting work was sensitive to imbalances of power in the creation of policy and also in the collaborations that occur between school representatives and partner organizations. Sondel, Kretchmar, and Ferrare (2015) argue that critical scholars "situate policies within social, economic, political, and cultural contexts" and that "by looking at the relationships between policies and the contexts they respond to and enable, critical scholars bring to the fore the specific interests and relations of power shaping

educational policy processes" (p. 70). In the examination of policy documents, it was important to recognize that these policies reflect particular perspectives. Aikens, McKenzie, and Vaughter (2016) elaborate on this idea, describing that:

> Critical policy research understands policy processes as complex, with multiple actors intervening in ways that influence what issues are identified as policy problems, what solutions are available, and how these policy solutions are championed, borne out, resisted, or subverted in practice. (p. 350)

The objectives and struggles of teachers and principals are not always clearly addressed by the policy that guides their work, and other voices with more influential power have the potential to affect how ESE policy is structured. The investigation of educational policies regarding partnerships through a critical paradigm and the identification of where and how these policies are lacking revealed situations in which imbalances of power had the potential to negatively impact ESE objectives.

The research of this thesis was drawn from data resulting from the SEPN's comparative case study (CCS) (Merriam, 2009, pp. 49-50), which was structured to inform and impact sustainability education policy and investigate the relationship between policy and practice in this field. Case study research is useful in researching the enactment of policy as it is an, "investigative approach used to thoroughly describe complex phenomena … in ways to unearth new and deeper understandings of these phenomena" (Mertens, 2014, pp. 243-244). The enactment of ESE policy is certainly complex as many unique individuals and parties are involved in its creation and execution. A case study addresses this complexity by constructing, "a detailed, in-depth data collection involving multiple sources of information in a rich context over time" (Creswell, 1998, p. 61). SEPN's research included a variety of methods in diverse contexts to describe the state of ESE across Canada, where significant differences exist between the education systems of the different provinces (Canadian Education Centre Network, n.d.). Carrying out similar case studies in a variety of sites allows for comparison and contrast, providing a more thorough understanding of the commonalities across the country while also highlighting the uniqueness of specific geographic and social contexts. Merriam (2009) describes that CCS can lead "to a unified description across cases; … to categories, themes, or typologies that conceptualize the data from all the cases; or … to building substantive theory offering an integrated framework covering multiple cases" (p. 204). In this thesis, the insights gathered from

a variety of cases were brought together to create guidelines that are adaptable and useful in a wide variety of contexts and situations.

3.2 Ethics

Ethics approval was granted to conduct and analyse interviews and surveys from teachers and principals through the SEPN project. National survey participants indicated consent as part of their online participation. Consent forms were completed from each school division involved in the site analyses, and written or verbal consent was received from each interviewee (see Appendix A and B for consent forms).

3.3 Data Collection Methods

The specific methods for how the data for this thesis were collected are described in this section. This includes descriptions of how: sites were selected from across Canada, a national survey was carried out, interviews were conducted, and heat diagram surveys were administered. All of these data were collected through SEPN's national research project, described in the introduction.

3.3.1 Site selection. The national SEPN research project selected sites from across Canada to "ensure regional representation, a range of sustainability uptake levels, and French language inclusion" (Chopin, Thompson, & McKenzie, 2016). Selecting at least one site from Canada's west, prairie, central-west, central-east, east, and north geographic areas ensured regional and cultural diversity. Six provinces were selected, British Columbia, Manitoba, Ontario, Quebec, New Brunswick, and Nunavut based on these criteria. In Canada, each province and territory has its own ministry of education, with unique policy specific to the region and context.

Within each of the six selected provinces, two school divisions were identified, one urban and one rural, with the exception of Nunavut and Ontario, in which cases only one division participated. School divisions were also selected to represent a range of sustainability engagement. Divisions were identified as high or low uptake based on a nation-wide survey carried out in earlier research that considered division level sustainability-specific policies, participation in eco-certifications, and the existence of sustainability staff (Beveridge, McKenzie, Aikens, & Strobbe, 2019). In Quebec and New Brunswick, French language school divisions were selected to include language diversity across sites. From each of the 10 school divisions, one primary and one secondary school were visited resulting in the collection of data from 20

schools (See Appendix C for ministry, division, and school characteristics). All of the schools selected were public provincial schools.

3.3.2 National survey. In 2014, SEPN conducted a national survey, collecting responses from over 1000 participants across Canada on the relationships between policy and practice regarding ESE in the formal education system. This survey asked participants questions about their specific local context to find similarities and differences regarding policy development, translation, and enactment across the country. From survey responses of those who identified as K-12 teachers or principals in the six provinces that were visited in the site analysis, responses to the following questions and prompts were reviewed (see Appendix D for the full survey):

- Participants were asked to rank or rate key drivers and barriers to implementing sustainability practices in their setting, and then asked to define the most influential driver of implementing sustainability in practice in their setting.
- Participants were asked to identify in which ways their setting engages with the broader community on sustainability.
- Participants were asked to rate to what extent their school partnered with government agencies, industry or business, NGOs, or postsecondary institutions for community outreach about sustainability, and in another question asked what is the most common scope of community outreach of these partners.

Results of these survey questions provided more examples of partnerships, and offered quantitative rankings to indicate what types of partnerships and activities occur more often than others. Regional differences were noted and matched with site-specific data collected through other methods.

3.3.3 Interview. During the site analyses of the SEPN national project, structured interviews were conducted with a variety of staff, students, and community members to collect qualitative data regarding their perceptions of sustainability practice and policy at their schools. The interviews of teachers and principals were reviewed to inform the work of this thesis. In total, 57 interviews were conducted with teachers and 20 with principals. Interviews were split into two parts, one focusing on the interviewees' perception of their school's sustainability practices, and the other on sustainability policies. This study focused attention on the responses to questions regarding practice. Among other topics, interview questions addressed the origins,

influences, primary actors, barriers, supports and outcomes of a specific sustainability practice identified by the interviewee (See Appendix E for the full interview protocol).

3.3.4 Heat diagram survey. Numerical data collected through an interview heuristic were also collected during interviews and other site visit interactions using an interactive computer 'heat diagram' application (see Appendix F). This application gave participants the opportunity to rank sustainability practices of their setting in the domains of governance, community outreach, curriculum, operations, research, and other. Participants also had the opportunity to offer examples for each of these domains. Responses from these open comment sections were reviewed to find examples of partners and partnership activities. In total 134 teachers and principals completed heat diagram surveys. Of those teachers and principals, 53 provided a response to the open-ended prompt to list sustainability practices in the domain of community outreach.

3.4 Data Analysis Methods

Data collected for this thesis were analyzed nationally, and also in relation to the specifics of each of the six provinces. All of the interviews of the SEPN project were autocoded by question prior to the analysis carried out for this thesis. The intention was to review only the responses to questions specific to partnerships and involvement with out of school entities. As the work proceeded, it became clear that selecting bits and pieces of the interviews in this way failed to adequately communicate the story of each school and educator. As a result, the practice section of each teacher or principal interview was read in entirety. While being read, responses were coded to identify descriptions of how partnerships began, the types of support and activities that were facilitated, and outcomes that resulted from partnerships. Interviewee suggestions of how policy could support future partnerships were coded as well. It was also noted each time a specific partner was mentioned by name. This analysis was carried out using NVivo 11 qualitative data management software.

A master list of organizations mentioned by teachers and principals as partners was created gathering together specific partners found in interviews and the open sections of heat diagram surveys. The average number of mentions by teachers and principals in each division were calculated to indicate in which cases partnerships were more or less prevalent. This list also allowed for counts of partners mentioned more than once, and a tally of partner types to find which organizations, businesses, or corporations might be more active in a particular setting.

These numerical data were analyzed in regard to each regional policy context to deduce whether the current policy or lack thereof is impacting these engagements.

3.5 Limitations

Though access to a substantial national dataset helped to make this thesis valuable and important, it also presented limitations to the findings and analysis. In utilizing a comparative case study approach for which the researchers visited several sites over a relatively short period of time, the breadth of this research allowed for comparison of various contexts from across the country. However, the depth of any one story of this research project was limited. Also, SEPN's research intentionally sampled schools from a diversity of settings and levels of sustainability uptake, however this sampling is in no way comprehensive and provides only a glimpse of the variance that exists in education policy and practice across this vast country.

My personal investigation of the data was impacted by the fact that I was not involved in the development of the data collection methods, nor the carrying out of interviews and surveys. All of the data had been collected before my work on the project began. Because of this, questions were not framed or organized in ways that I may have chosen to more specifically investigate the topic of partnerships. The interpretation of interview responses could have also been limited because interviews were reviewed only by transcript, not audio recording, and I was not involved in the transcription process. As such, indication of emotion or emphasis presented by tone of voice or expression did not offer any insight in my analysis. My personal understanding of the context of these sites was further limited, as I was only able to visit one site personally. On the other hand, my distance from the data collection ensured that my analysis of the findings was unbiased by stories or encounters existing outside the dataset.

Chapter 4: Findings

This chapter brings together the insights offered by the study's various data sources. The number of times teachers and principals mentioned specific partners in their interviews and in open comment sections of national surveys and heat diagram surveys were compared by participant type, region, and partner type to get a sense of the prevalence of different types of partnerships across the research sites. Tallies by partner type were compared to ratings from surveys on the extent to which organizations partner with schools for community outreach on sustainability. The number of times a specific partner was mentioned also offered insight into which organizations are engaging more frequently with schools. Descriptions from interviews of how partnerships began were also collected, and sorted by whether the relationship was initiated by a teacher or the partner. Interview, heat diagram survey, and national survey responses that described practices that resulted from partnerships were collected and sorted by type. Categories that emerged were presentations and field trips, school gardens, funding, multi-faceted partnerships, and other activities. Next, the predominant outcomes of partnerships were identified including the raising of awareness of sustainability issues, positive student emotions regarding sustainability and learning in general, and a sense of connection to the community. Finally, data on struggles that teachers identified were reviewed, and analyzed together with suggestions regarding how policy could help address these issues. These findings are reported in the following sections.

4.1 Prevalence of Partnerships

The responses to questions in the practice section of the interviews of teachers and principals were read and any mention of partnership activity was coded. The collection all of these mentioned partners showed that most interviewed teachers, and half of the interviewed principals made reference to a partnership when discussing ESE practice at their school. Some teachers mentioned many more partners than others, indicating significant variance in the degree to which individual teachers value and engage with partners. The number of partnerships mentioned in interviews also varied regionally. Most partnerships occurred with NGO's, however partnerships with businesses, governments, banks, universities, industrial corporations were also described.

4.1.1 Partnership prevalence by interviewee type. Most teachers and principals mentioned engaging in out-of-school connection in their ESE practice. Specific partnerships were mentioned by 50 interview participants (64% of all interviewees). Of those who mentioned partners, 10 were principals (50% of interviewed principals) and 40 were teachers (70% of interviewed teachers). On average, teachers mentioned 2.21 unique partners in each interview. Principals mentioned fewer, only 0.85 unique partners on average in an interview, and half of the principals did not mention any partners. This likely indicates the teachers' more intimate understanding of specific classroom practices. Because such difference existed between principals and teachers, these participant types were considered separately in further data analysis.

There was great variation among individual teachers regarding how many unique partners they mentioned when discussing their school's sustainability practices. Some teachers seemed to be "super connectors" and engaged with partners to a much greater extent than others. Six teachers mentioned 8 or more different partners in their interviews, well above the average of 2.25 (see 4.1). Three of these super connectors were from British Columbia, however none were from the same school. This indicates that the teachers themselves seem to decide independently whether or not partnerships are an important aspect of ESE, and how much to engage with

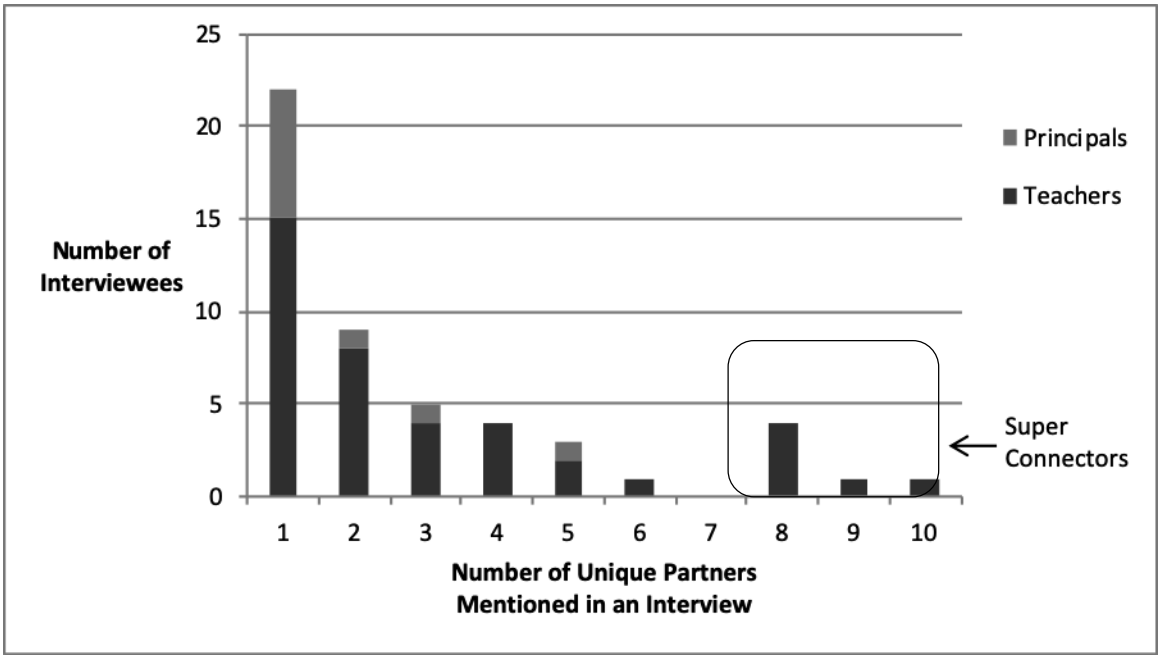

Figure 4.1. Teachers and principals grouped number of unique partners mentioned

partners in their ESE teaching practice. It was mentioned in interviews that the connections could snowball for a teacher who is open to partnerships. One teacher from Manitoba explained, "All those connections happen organically. They sort of evolve, you keep putting links in your chain and your chain keeps getting bigger and stronger and longer and it's pretty fantastic." This implies that if a teacher is interested in partnerships, and perhaps willing to take the first step, many opportunities exist to bring community connections into their classrooms.

4.1.2 Partnership prevalence by region. The data show that the level of teacher engagement with partnerships varies regionally. Two regions with higher than average mentions by teachers were the school divisions of British Columbia's Nechako Lakes School District, where they mentioned an average of 4.5 different partners, and Manitoba's Evergreen School Division, in the Gimli area, where 3.6 different partners were mentioned per teacher interview (see Figure 4.2). It is notable that the two divisions that had the highest number of unique partner mentions are rural. This could reinforce the idea that partnerships are based on an individual educator's personal connections, as those in smaller towns may be more likely to have stronger social networks in the community surrounding the school. I should be stated that this data underestimates the level of community involvement in one particular case in Rogersville, New Brunswick where a teacher has connected with over 50 business partners for funding and

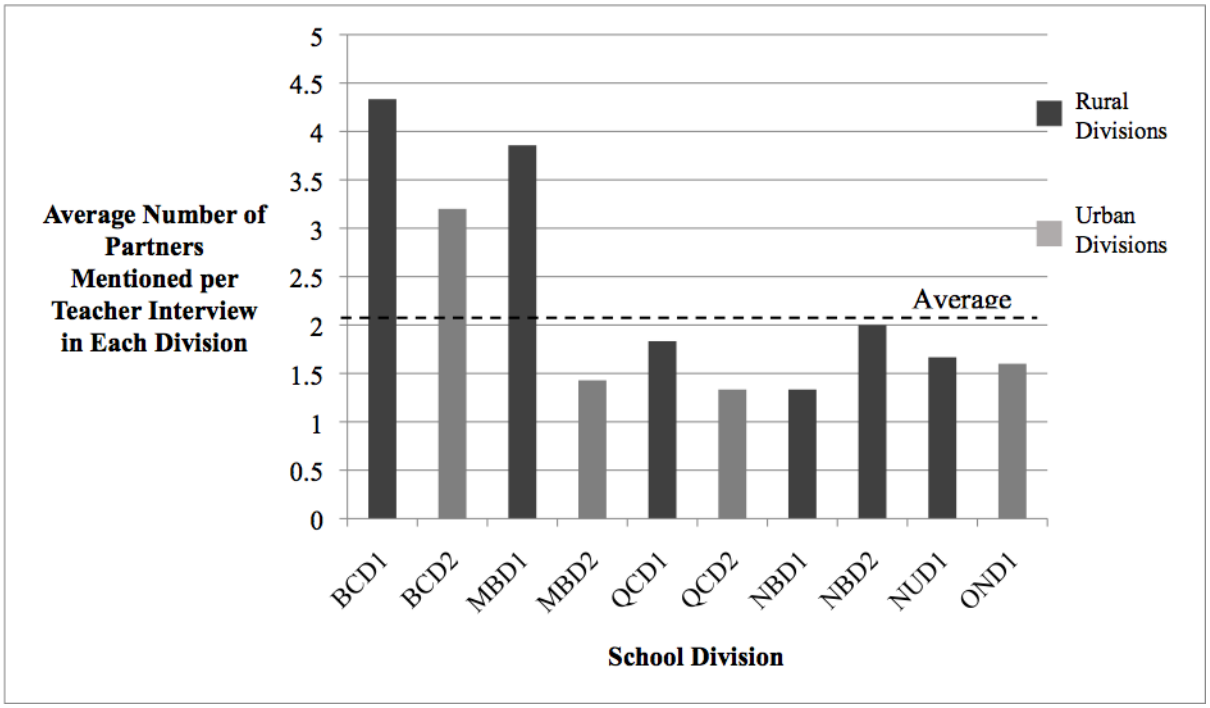

Figure 4.2. Average number of unique partners mentioned by interview

resources to teach outdoor hands-on ESE programming. The principal of the school described, "On reçoit je dirais environs $20 milles par années de la communauté, les différentes entreprises pour appuyer les projets – We received I would say about $20 000 a year from the community, different companies to support the projects." Because these partnering businesses were not listed by name they were not accounted for when the data was sorted to find average number of partners mentioned by teachers. If one or more teachers from this school had listed these partners by name the rating for NBD2 in Figure 4.2 would have been much higher. A teacher from Gimli, Manitoba offers insight into why local partners may be more willing to connect with schools in rural settings, "The school is the community, the community is part of the school. It's all so interconnected that it's hard to separate them. And I think we have the advantage of that in a small town." Community members of a smaller community may feel more comfortable approaching a school and teachers who are already familiar to them in some other way.

It is also clear that, more broadly, higher than average numbers of partner mentions occurred in British Columbia and Manitoba, which could reflect the impact of culture, or policy context on ESE practice. In Canada, British Columbia is regarded as having a culture that values environmental awareness and activism. The province has been lead politically by the Liberal and New Democratic Parties since 1991, and is the birthplace of the Canada's Green Party. It is likely that the strong environmental culture of British Columbia would positively impacts environmental awareness and activities overall in schools, leading to more partnership activities in ESE. In Manitoba, strong leadership at the ministry level may have had a positive impact on ESE policy, practice and culture. The Deputy Minister of Education from 2004 – 2016, was a strong proponent of the adoption of the United Nations ESD goals. Champions like this have the potential to set priorities and establish values that impact cultural norms in education across a wide region.

4.1.3 Partnership prevalence by type. The types of partners that were mentioned in interviews, and listed in the open sections of national surveys and heat diagram surveys varied widely including government organizations, NGOs, local and international businesses, clubs, banks, and individual community members and elders. Some types of partners were much more likely to be mentioned in interviews by teachers and principals, with NGOs far outnumbering other types of partners. Interviewed principals and teachers mentioned 63 different NGOs. These included large scale non-profit organizations like OXFAM and the David Suzuki Foundation,

organizations that run local nature interpretive and conservation centres like Winnipeg's Fort White and the Nechako White Sturgeon Conservation Centre, and organizations that promote environmental events like Take Me Outside Day and International Polar Bear Day. Altogether, 39 teachers named at least one NGO in the practice section of their interview, 23 teachers from rural divisions and 16 from urban divisions. Government organizations were mentioned in 15 different ways. In urban centres teachers and principals were more likely to mention partnering with municipal government in some way, and in rural divisions partnerships with provincial departments (like departments of fisheries and oceans) and connection with regional conservation districts was more common. Altogether, 8 different businesses were mentioned as providing grant money, organizing local events, or offering supplies or services. Funding was also mentioned as provided by 3 different banks. Partnerships with universities and colleges were described four times. Agrium (now Nutrien) and British Columbia Hydro were the only 2 industry partners mentioned, however they were both mentioned by more than one individual. There were 13 cases in which teachers described partnering with individuals from the community in the practice section of their interviews, 8 of which were with local Indigenous elders. Notably, all of the mentions of partnering with Indigenous elders came from rural teachers, six of whom were from Nunavut, where connecting with local elders was the most common type of partnership.

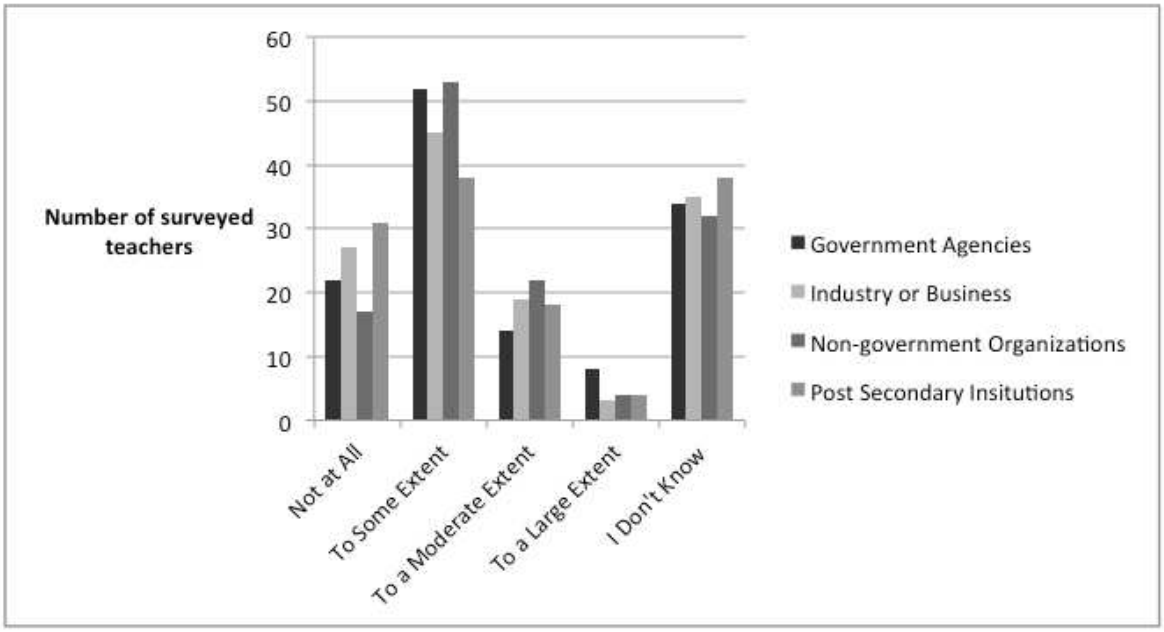

Figure 4.3. Teacher survey ratings of the extent to which organizations partner

Survey data confirmed that NGOs have a significant role in partnering with schools on sustainability activities, yet from this data set government agencies were also identified as significant partners though the disparity between groups was not as significant (see Figure 4.3). Perhaps this difference is the result of participants rating based on their general impression, without having to call to mind specific partnership examples. The difference could also be due to the survey question being specific to community outreach action, while many partnerships that exist may be focused on other types of learning activities. It should be noted that the majority of participants identified this survey question as not applicable, and a significant number responded 'I don't know.' Either way, there is plenty of evidence that teachers and principals engage with and are influenced by a wide variety of out-of-school organizations.

4.2 Impetus for Partnerships

Descriptions of how partnerships began were collected and organized by which entity was the initial driver. Most comments indicated that partnerships were initiated by an independent teacher. Teachers seem to reach out to partners with whom they are already familiar or connected, resulting in most partners being unique to one individual teacher. In some cases, partnerships were described as resulting rather spontaneously as the result of chance encounters. In rarer cases, an outside individual or group is described as initiating partnership activities. A few examples are also offered of partnerships that were long-term and multi-faceted, sometimes involving investment from more than two parties to work toward a common goal.

4.2.1 Teachers as the primary initiators. When questioned about how a sustainability project began, most teachers who talked about partnerships suggested that the teacher was the primary initiator. For example, one respondent indicated, "It varies based on classroom teacher priorities," and another stated that involvement with community organizations is "teacher based and dependent." The result of teachers creating partnerships based on their own motivation is great diversity in the types of partnerships pursued, and in how the partnership is carried out. A teacher from British Columbia pointed out that:

> Teachers for the most part are fairly autonomous in the examples that they choose to bring to their students. So how I'm choosing to approach a particular topic is very different from how another one will. You know? There's a lot of autonomy. And part of that is to meet the needs of our local students.

As this teacher stated, the benefit is that the teachers are able to form a partnership that best serves the needs of their specific class.

The number of partner mentions, and how often specific groups were mentioned seems to reinforce the finding that most partnerships are initiated by teachers. Overall, 107 unique partners were mentioned by name in the interviews, national surveys, and heat diagram surveys. The vast majority of these partners (91) were mentioned by only one teacher or principal, indicating the tendency for each individual to establish partnerships based on their own unique experiences and relationships rather than teachers being broadly targeted by a few prominent organizations. One interviewee explained:

> I think it comes from a lot of personal interest. If educators are really interested in that, then they will seek to put it into their programs which is what I think happened mostly here…when that's a passion and an interest and an importance to an individual, then you go out and you try and find those things to support your programming and support your ideas. So that's where you make all the connections.

Based on the analyzed data, the partnerships engaged in by study participants were unique collaborations between a single teacher or principal and an organization with which they had a previous connection.

Teachers who initiated partnerships were not always intentionally seeking to partner, but rather the partnerships seem to spring up through engagement in networking opportunities. Several teachers mentioned that partnerships were initiated through encounters that resulted from participation in conferences or presentations. One teacher gave an example:

> Sometimes we find community partnerships and they fall in our lap. I'm going to be partnering with an organization called Be the Change Earth Alliance to do a waste assessment with my grade eights starting at the end of this year. I found them at a conference and said, "Hey! I have grant money. Let's work together!" I don't know how to explain it other than it's just kind of organic. And then when something goes really well we like to keep going with it.

Of course, this means that teachers who have the temporal and financial resources to attend conferences and presentations may be more likely to have these types of encounters. Teachers must also be generally open to the idea of partnering in order for one of these chance encounters to result in active partnership.

4.2.2 Partnership initiated by an outside individual or group. Instances of out-of-school organizations initiating partnerships with teachers or principals were less prevalent, but not unheard of. Of the 103 partners mentioned in interviews, 15 were mentioned by two or more participants. Most of these partners were more popular in several schools of a similar region. For example, the David Suzuki Foundation and/or their Blue Dot initiative were mentioned five times in British Columbia and once in Manitoba but not at all in other provinces. Similarly, Ducks Unlimited was mentioned four times in one rural school division in New Brunswick, where the organization had assisted in the establishment of a wetland centre. When more than one teacher mentioned a specific partner it seems likely that either teachers and principals were sharing connections, or the partner was active in reaching out to schools.

Some organizations have designated outreach individuals that are able to help forge meaningful connections between their group and a teacher. An example that demonstrates the value of this comes from British Columbia. A teacher in the rural division of Vanderhoof, British Columbia noted, "There's a person from the Recycling and Environmental Action Planning Society in Prince George and she'll come out and help you." She went on to explain, "If there wasn't somebody like that doing it, it would be really hard to contact the fisheries directly… she has the knowledge base. She has the extra little bits of equipment right? So I'm not scrambling as a classroom teacher." The support of a resource person can be especially valuable for teachers or principals who are open to a new project but feel they lack knowledge, contacts, or physical resources.

A passionate community member may also act as an intermediary between a school and an organization in order to accomplish a goal. An example of this comes from a rural division in New Brunswick where the inspiration and initiative of an independent passionate individual resulted in the creation of the Tantramar Wetlands Centre through a multi-party collaboration. A teacher told the story of the beginning of this project:

> Well, there was a retired biologist from the Canadian Wildlife Service … and he thought the abandoned hay field below the high school would make a great outdoor classroom for the students at the high school. And so, he shared that idea with Chris Porter, who was the biology teacher at that time. And he picked up that idea, and he got partners from the Canadian Wildlife Service, the town of Sackville, (and) Ducks Unlimited Canada."

This project began with an individual who was not a teacher, nor an active representative of an organization. Because he was motivated and comfortable approaching the school with his idea, a significant and impactful project was initiated. The outcome is described in the paragraphs to follow regarding multi-faceted partnerships.

4.2.3 Multi-faceted Partnerships. Perhaps the most secure and productive type of partnership exists when the support is multi-faceted. Included in this category were cases in which one partner offers a myriad of support, often through continued contact with a representative. Also included are instances in which a web or network of collaboration is formed between many partners to meet a common goal. Multi-faceted partnerships seem to be more likely continue on over time, and evolve along the way to respond to the changing tasks of a long-term project.

In some cases, one partner was seen to offer a diverse and continued support. One case from British Columbia highlights teachers and students who wanted to create a full food cycle, from seed to compost. They received funding from a program to purchase materials, and were also connected to a mentor, who was simultaneously working on the program for her masters' thesis. The teacher involved said, "I feel like we've really used the community resources well and that they've really enriched what we're doing at the school." When both sides of the partnership feel equally invested and the connection is mutually beneficial it is the most likely to be successful. Another example came from a teacher in Quebec who described support from a representative of the local Community Learning Centre. She describes, "we didn't ask her for much because we didn't know what was out there to ask," yet the motivated and connected partner assisted the teacher with grant writing, awareness raising, and connection to other businesses who were willing to donate material goods. The teacher summarized the relationship saying, "she really got involved and that was very supportive. And it was surprising. I mean, we did not expect it so that was really nice." The committed support of a partner, and a shared vision and goal can help ensure the success of a daunting project.

Two cases were seen in which many partners were involved in a long-term project. The aforementioned Tantramar Wetlands Centre has been sustained for over 20 years, and resulted in authentic learning about the value, restoration, and management of wetlands for over 4 000 visitors annually (Tantramar Wetlands Centre, 2019). In Rogersville, New Brunswick over 60 businesses and organizations from the community and surrounding area have pitched in to offer

funding, supplies, and services for the industrial arts classes to build outdoor learning spaces around the school and town. The students have worked on rain catchment systems around the school, vegetable and pollinator gardens, planting and maintenance of perennial garden areas, and a chicken coop. Pedestrian rest points with small garden boxes were built by students and distributed around the town of Rogersville. These projects have had the opportunity to grow and change over time, expanding influence into the surrounding community, because of the continued support of a network of partners.

4.3 Partnership Activities

Though the activities for which teachers and principals engage with partners are diverse, some trends were seen in partnership activity type (see Figure 4.4). When partnerships in ESE were discussed, the most common activity talked about was support in creating, sustaining, or optimizing gardens. Presentations from experts, elders, and organizations were also common. It was also common for interviewees to mention connecting with a partner to facilitate a field trip or land-based educational experience. Several teachers mentioned receiving physical supplies from partners, like compost bins, bicycles, or building supplies. Teachers also noted educational resources created by organizations as valuable. A few teachers recalled an activity referred to as a waste audit or waste assessment, and a couple of others described how partnerships facilitated recycling programs at their schools.

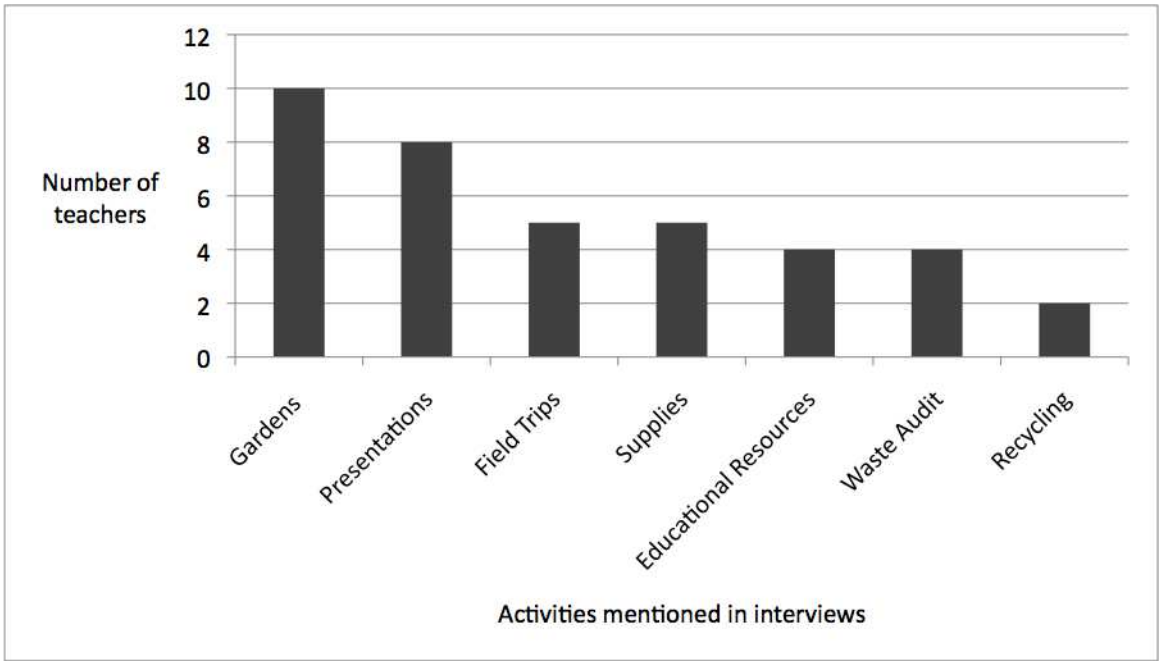

Figure 4.4. Types of activities mentioned as resulting from partnerships.

4.3.1 Gardening. It was common for teachers to mention school and community gardens when discussing partnership activities. Of the 40 teachers who discussed partnerships in interviews, 10 brought up gardening activities resulting from those partnerships. From heat diagram survey data, 18 of the 53 teachers and principals who offered responses (over 1 in 3) noted a garden as an example in the open-ended response section for community outreach. It should be noted however that gardens were offered as an example on the heat diagram survey form (see Appendix F). Interviews from across the country provided examples of schools partnering with community members, small businesses, and local organizations to work on school gardens. These partnerships are described as valuable in keeping up with the demanding work of creating and maintaining garden spaces. One teacher pointed out, "It's difficult because around the summer time there is no one here consistently. So our plan was to try to get someone from the community or a group from the community, if they could come by and help water or help to green up the place." Another teacher noted that the support goes beyond just keeping up with the physical work, saying, "I think there's more power to having sort of a group set of activities … because if it falls on one teacher to organize, it doesn't really have the same feel to it." Creating a team to work on a project like a garden offers a sense of mutual benefit and shared sense of accomplishment, which can also help lighten the burden of the work.

A Vancouver teacher also discussed how a partnering organization helped structure student learning in the garden. She tells the story:

> We were modeling and putting in infrastructure to do the whole food cycle at school. So we received some grant money and used that to buy kitchen bins to prepare food at school. We worked at doing planting, cooking, composting, renewing the soil so that the kids could complete the whole food cycle at school. And we had a mentor from that program come and work with us and with my class specifically… Last year it fell back to us as individuals, so we worked with a group called EarthBites … who came in and took each class for two food and garden-related activities every month or so to have the kids connect with the garden and food cycle.

EarthBites is described on their webpage as a not-for-profit organization "created with the mission to connect kids with their food". The organization connects local urban gardeners and a nutritionist to a school to assist in planning, management, food production, and produce utilization, in order to optimize the school garden as a place of learning. There is a $35 per

student fee to run this particular program for the full school year. This situation provides an example of the great potential benefit of a partnership, but also shows that partnerships can be a struggle to initiate or maintain if funding is not stable.

4.3.2 Presentations. When asked about their ESE practice, eight teachers mentioned that they invite experts from outside the school to share their knowledge with the students. This includes presentations and interactive lessons from local elders, community organizations, industry representatives, farmers, and fishers. A teacher from Nunavut describes:

> I've been very supported in bringing in Elders and being able to take my students for hikes and doing actual research where we go and take a look at plants that are around in the hills and around our community and then being able to talk to them with somebody who has further knowledge than the books we have here.

The same teacher noted that she introduces guests to her students by explaining, "This person who comes into the classroom to help us, they're volunteering, they, themselves think this particular subject for you is important for you to learn." When students see that members of the community care about their education they are given the impression that the information is valuable.

4.3.3 Field trips. Five teachers described partnerships facilitating out-of-school ESE experiences for their students. It is notable that four out of five of these teachers were from the same rural school division in British Columbia, two from the high school and two from the elementary school. Perhaps this indicates an educational culture in which field trips are more normalized or encouraged.

Some teachers described how connecting with an individual or group created an opportunity for land-based learning. The students of one class were taken to a local farm, to see and learn about agricultural practices that take place in the area surrounding their town. Other students were taken to visit a woman who demonstrates Indigenous methods of smoking and drying salmon at her home. One teacher describes taking her students to the John Prince Research Forest, where, "Researchers from the local Indigenous communities and from academic institutions join forces to examine common research questions that seek to expand their mutual understanding of environmental issues" (John Prince Research Forest, n.d.). She describes:

> They used to take us up there and do things like scraping hides and showing the traditions … They talk about conservation of rivers and streams, and then they take us for forest walks and show us different holes can be homes for animals.

It is clear to see that an experience like this provides learning opportunities for students that wouldn't be possible otherwise.

4.3.4 Supplies and educational resources.

Teachers described receiving physical resources predominantly from local community groups to facilitate ESE activities and programs for students. In Vancouver a small community non-profit bike shop donated bikes to start a bike mechanics program at the local high school. In the small town of Richmond, Quebec the Municipal Regional Council donated a compost bin to the school. The teacher describes:

> We never used them because it was one of those big, dome-shaped black plastic ones. The kids asked me, 'What's that thing in the corner of the classroom? How can we use it?' We started talking about it and decided that it wouldn't be big enough for the school to use, so we came up with a plan to build our own.

Despite the donation not actually being functional for the class or school, it triggered curiosity and motivation in the students to act in response to the offering. Teachers from three different rural divisions all described that local organizations and businesses provided resources for school activities upon request. A teacher from Rogersville, New Brunswick describes how this commonly takes place:

> Lorsqu'on appelait les compagnies locales pour avoir ce matériel-là, ils demandaient c'était pour quoi et c'est arrivé souvent que les compagnies ont dit, non, on veut vous le donner. Alors à la fin de l'année on a resté avec un surplus d'argent. - *When we called local companies to get this material, they asked what was it for and it often happened that the companies said, no, we want to give it to you. So at the end of the year we stayed with a surplus of money.*

At two schools these donations were used for the development of outdoor learning spaces surrounding the school.

Several teachers mentioned utilizing educational resources that were published by environmental networks to supplement and enhance their teaching. One teacher noted that they appreciated being able to use locally developed material, specific to the geography surrounding

their school. Teachers also mentioned utilizing the newsletters from the David Suzuki Foundation, online tools offered by Ottawa's Museum of Civilization, and water sustainability activities provided by Free the Children (now WE Charity).

4.3.6 Waste audit and recycling.

Teachers and schools across Canada partner with organizations and businesses to learn more about waste and establish recycling programs. Teachers in both of the British Columbia Divisions, one Manitoba division, and the only visited Ontario division recalled a community organization coming into the school to perform a waste audit or waste assessment with the students. One of the British Columbia teachers describes a waste audit as follows:

> We all went to the gym, and we emptied out a garbage bin … to sort the garbage, and so this can be composed. This is a plastic. This is paper and cardboard. This is actual garbage, and anyway that was a big one. And that's when we started doing all the recycling.

Another teacher who participated in a waste audit mentioned later in the interview that the students now participate in a 'plastic bag roundup' with the local Kiwanis Club. In more isolated areas, where recycling programs are not run by municipalities, businesses can act as a centre for collection and transportation to recycling facilities. For example, a teacher in Nunavut described that the Co-op accepts recycling for cans that are collected at the school. A teacher from the rural British Columbia division notes that students were involved in a project to collect batteries and cell phones so that they could be recycled.

4.3.7 Other types of partnerships. Interviewed teachers and principals offered many examples of partnership activities that were unique to them and their contexts. Some engage with programs to bring living things into the classroom, including fish tanks and butterflies. A teacher from the rural division of British Columbia described how a connection with the Nechako Environment and Water Stewardship Society presented an opportunity for her students to raise sturgeon in their classroom.

> If there wasn't somebody like that doing it, it would be really hard to contact the fisheries directly. She gives the support to the school, and she has the knowledge base. She has the extra little bits of equipment… also it's illegal to have these fish unless you are working through fisheries, like I have a license for the classroom.

In this case, because the partnership was made with a local organization, the learning was very specific to the natural environment surrounding the school.

The learning activities that result from partnerships can also provide the opportunity for students to observe their local communities and surroundings in new ways. One Manitoba teacher explained how he utilized a data collection application created by Bike Winnipeg and the Green Action Centre to guide students through a project that documented their transportation choices.

> We did a BikeWalkRoll survey … It's basically a counting statistic app that he made for when we do bike counts in the spring and fall… Overwhelmingly, three quarters of my class are driven to school every day. This is what I tried to get them to see, is it's one thing to be shocked by this, so there is that emotion that they have, but it's another thing for them to go, "Okay, I'm actually going to do something."

By using this data collection tool the class was able to see trends of the group that had the potential to initiate discussion and lead to changes in behavior. Another teacher described participating in the Global Space Balloon Challenge, releasing a high altitude weather balloon to collect images and data from the edge of space. These data were added to an online database created by the partner to allow students to compare their home region to others around the world. These tools provide students the opportunity to reflect on the impacts of their choices, and the actions of their communities. These projects also have the potential for students to compare themselves to others, and feel connected to other researchers and students outside their school.

A final way that partners were noted as connecting with schools was through student mentorship. One principal from the small town of Gimli, Manitoba described:

> I think we typically have about a third of our grade eleven and twelve students participating in community-based internships and partnerships. That requires mentorship of a committed adult in the community. Sometimes it's a partnership with someone like Zack (a community member with Manitoba Council for International Cooperation; Fair Trade initiatives) where a partnership will be 'let's push local industry on fair trade, and I'll be your mentor in that because I've got a lifetime of experience in it'.

Mentorships have the potential for students to be guided by a role model, and envision themselves taking similar action.

4.4 Partnership Outcomes

The results of partnerships described by teachers and principals are as diverse as the partnerships themselves. Teachers and students are inspired by partnership activities to take on new sustainability practices in their classroom or school. Teachers describe that partnership activities result in increased student emotions of pride, excitement, and interest as well as deeper student engagement. A stronger sense of community was also noted as an outcome of partnership activities, especially in cases in which multiple partners are invested in a common task.

Many teachers talked about school programs, organizations, or presentations inspiring new sustainability action in their classrooms. For example, one class of students was motivated to start a battery collection program. Their teacher commented, "Well you see what's happening elsewhere, because we didn't even know you could recycle little batteries. We went on a school trip and there was battery recycling containers and we're like oh well we can do that." General recycling collection programs were also the result of partnerships between schools and local organizations or businesses in rural communities, where recycling services were not previously available. Another example of a sustainable action resulting from connection with a partner is the British Columbia Hydro 'lights off' campaign and toolkit, challenging students to turn out the lights in empty rooms. Entities from outside the school have the potential to change common school practice by offering information and ideas from an alternative perspective.

It was also common for interviewees to mention that the out of the ordinary experiences made possible by partnerships had a positive impact on student engagement and emotion regarding schoolwork. A principal from New Brunswick noted that students displayed, "Beaucoup de fierté. C'étaient de nouvelles idées, de nouvelles découvertes. C'est allé hors de la boites, c'est excitant pour les jeunes - *A lot of pride. They were new ideas, new discoveries. It's gone out of the box, it's exciting for young people."* More than one teacher commented on student engagement saying, "kids are going over and becoming more and more involved and I think that's really interesting for them." And from another teacher, "I have never seen students as engaged as when we're outside learning … Like it's just natural. They're on task. They're focused. They're learning." Partnerships have the potential to inspire and facilitate out-of-classroom activities that engage and allow them to learn through curiosity, exploration, and problem solving. It is clear that these unique experiences help contribute to meaningful and authentic learning opportunities.

In places where connection exists between a school and multiple community partners, it was noted that students feel an increased sense of connection to the broader community. One Nunavut teacher elaborated on this point explaining, “it builds connections for the kids too, because they’re part of something bigger than the classroom. And they connect on a social aspect, becoming part of the community, and it makes the program real.” A sense of connection is an important aspect of ESE as individuals see how their individual actions contribute to a larger system. The same teacher from Nunavut emphasized this point when she expressed, "I don’t think sustainability programs can just happen in the school independently of community, what’s the point otherwise.” Partnerships have the potential to engage students in meaningful ESE learning that could influence a student’s sense of themselves and the impact of their actions on the world around them.

The interviews demonstrated that, especially in rural communities, the desired outcome of community connection could be a motivating factor for partners to engage with a school. There is a sense that if a partner can help cultivate a sense of connection in students the may be more willing to remain in or return to the community, preserving traditions and a shared way of life. An example of this comes from Rogersville, New Brunswick where the school has received support from over 60 businesses and organizations to accomplish projects that have transformed their schoolyard and enhanced outdoor spaces in their community. A school principal described the context, “Ben, c’est sûr qu’on a tout l’appui des entreprises locales ... Y’a plein d’entreprises qui sont prêtes à nous aider, à nous donner de la terre, à nous donner des arbustes. - *Well, we have all the support of local companies ... There are plenty of companies ready to help us, to give us land, to give us shrubs.* Another principal at the same school shed some light on the motivation of these partners, explaining that investment in the next generation has the potential to secure the future of the town:

> On est un endroit un peu plus isolé ici à Rogersville. Alors on ne peut pas compter sur des personnes nouvelles qui ne connaissent pas Rogersville qui vont déménager ici. Faut vraiment compter sur la population existant, sur les jeunes qu’on a, pour assurer de la survie de notre communauté. - *We are a bit more isolated here in Rogersville. So we cannot count on new people who do not know Rogersville who are moving here. You really have to rely on the existing population, on the young people you have, to ensure the survival of our community.*

When a community recognizes that its future depends on its youth, more adults are motivated to participate in nurturing their growth.

4.5 Funding

It was mentioned in many interviews that the support they received from partners was monetary. Money from grants, sponsorship, or donation was typically used in ESE for supplies to initiate new projects, maintain ongoing projects, or for student transportation. Funding was noted as being provided by First Nations, local and national non-government organizations businesses, corporations, industrial entities, banks, and federal, provincial and municipal governments. Some of this funding came through school grant programs such as Metro's Green Apple Program and the Toronto Dominion Bank's Friends of the Environment Foundation, or Agrium's Caring for our Watersheds Program. Often money from partners trickled down from businesses, and through other organizations before making it to the school. For example, one teacher recounted that their project was made possible through a funding trail like this. She explained, "Still Moon Arts Society … got funding through Evergreen to make that project happen. So that funding was out of my hands. But they had money to spend so we said, "Okay! [Laughs]. We'll provide the labour, you give us the money! Let's go for it!" In this case, Evergreen is funded by donation and sponsorship as well, receiving funding in part by the Royal Bank of Canada, the Bank of Montreal, Kashi, Canon, and many other businesses and financial institutions. With all of this pooling and funneling of financial resources, it can be a challenge to track the origins of a grant or donation before it is used in a school.

Perspectives vary on the ease of access to money for ESE. One principal from British Columbia claimed, "You may not have the money, but if you have the will and the ability to find areas in order to obtain money to do whatever you want, it's there." However, teachers from the same school argued:

> One of the biggest challenges is funding… there's resentment from other teachers when their programs don't have that same kind of funding because they don't have the opportunity to do the same kind of grant writing process… They just have to get through the curriculum.

Another teacher, again from the same school explained, "It takes so much time to apply for the grants, it's a huge, huge job and every one you have to tweak it a certain way and stuff. So that part's hard." A teacher from Quebec shared the sentiment, and described the situation as, "C'est

qu'en fait il donne 500$ mais ça prend des heures et des heures puis des heures à rédigé les compte-rendu. Donc des fois il faut abandonner parce que dans un projet de cet ampleur-là, tout ce travail pour 500$? - *It's actually $500, but it takes hours and hours and hours to write. So sometimes we have to give up because in a project of this magnitude, all this work for $500?"* The struggle to apply for available funding may result in an imbalance of access as educators who are busier attending to other demands, such as large class sizes or more diverse student populations, would have less time to commit to other endeavors.

Another disadvantage of depending on grant money is that it is not guaranteed over time. The Tantramar Wetlands Centre that was previously discussed depends on funding year after year to continue. A teacher involved with the wetland centre explained:

> We go from year to year hoping for the funding, so I guess that would be – that's our one stress. But I think we've been at it long enough, and I still stress about it when I write these things up… That's probably the biggest stress, money; to pay for the staff and the equipment.

Another teacher from the same school commented, "If the funding would stop, the program would be gone." When programs depend financially on outside sources they are always at risk because priorities may differ or change between partners and there may be no protection or insurance for the receiving party.

4.6 Struggles with Partnerships and Suggestions for Further Policy Support

In interviews, only teachers discussed struggles in working with partners. Some common themes presented themselves when they talked about these struggles. In some cases, teachers brought up ideas of how policy could help support and guide partnerships. Teachers noted that a partnership could fall apart when a key individual is removed from the relationship. Partnerships may also fail when both sides of the partnership are not equally invested in the learning outcomes and one partner does not see a project through to completion. In other cases, teachers attribute partnership struggles to lacking communication, either within the partnership or with other affected parties. It is also noted that not knowing where to start or what partnership opportunities are available can be a hurdle that keeps teachers from making connections with partners. Also, some teachers communicated that reaching out of the school can feel like a risk that inhibits teachers from engaging in this type of activity. Through discussion of each of these

struggles, teachers describe emotions of disappointment and frustration in the face of losing the progress of hard work, and missing possible opportunities due to these struggles.

A common struggle highlighted by several teachers in their interviews is the lack of continuity in partnerships. Because teachers tend to have so much autonomy and independent control in connecting with partners, when a teacher leaves a school their connections are lost as well. One teacher explained, "Often, what happens is, it's great as long as the teacher's there … and if there's a change at one end of the organization or the school, sometimes it's lost in the changes, and the program kinda dies out." If policy guided the planning and documentation of partnership activities, it would have the potential to more easily pass a connection from one person to the next, preserve work that was already done, and allow partnerships to grow and flourish.

Partnerships may also be unsuccessful when there is an unequal power balance between parties or when one side is more invested than the other. One Manitoba teacher experienced this struggle when attempting to partner with large businesses to accomplish goals. She had established connection with Glad and coffee companies to collect and recycle Ziploc bags, and disposable coffee pods. In both cases, conditions were changed by the companies making it more difficult to send in these waste products, or canceling the programs altogether. These decisions negated the work that had already been invested by this teacher in setting up the program at the school. She expressed, "the kids were devastated… we're being kind of controlled by companies that want to fund certain projects and others who don't." Because the large companies did not share the same vision or passion for these recycling projects and no commitment was established, they could easily abandon the partnership leaving the teacher in a difficult situation. Policy has the potential to help guide teachers in navigating these types of risky partnerships and help ensure that investment in ESE projects like these are stable.

Some teachers said that partnerships have failed due to a lack of clear communication and as such were abandoned in the face of an obstacle. For example, one teacher commented that an organization that was once active in helping schools establish gardens in Vancouver had since withdrawn from engagement with the Vancouver School Board because of complaints from grounds departments. Perhaps, if communication had been more clear in the beginning of these projects they would not have come to face such challenge. Another teacher from British Columbia identified unpredictability with partners and said, "Those sort of things coming in and

coming out. They just happen sporadically, but it's not part of a big plan… It would be nice if there was policy, like a sustainability policy for every school." Another teacher from Nunavut reiterated, "So they come; they do presentations, we invite them in, we do projects. So it's more dynamic. But again, it's very people-dependent. There's no like, 'this is how we do business'… is very much people-dependent." Policy that offered guided planning and communication between parties could ensure predictability. If all involved are clear on the expectations and goals of a partnership, projects may be more likely to be successful and sustained.

Another disadvantage that was noted in the interviews is that, because connecting with resources or partners is commonly the sole responsibility of the teacher, opportunities can be missed. One teacher described her situation, saying, "Canadian Wildlife Federation has a wild spaces project where they encourage students to plant pollinator gardens … If I had known about it three months ago there's so much more I could have done. I found it by accident." This teacher goes on to express desire for increased communication for teachers to allow them to plan accordingly and take full advantage of opportunities that exist. Other teachers mentioned in interviews that they felt unaware of what resources and connections were available to them. A quote from one teacher provides an example of this sentiment:

> I think that teachers are also afraid to ask a little bit. And we may not just necessarily know what's out there. I know there's a lot of stuff out there but it's how do you access it? How do you even know what there is? I find that with the raw information I have I'm overwhelmed as it is. I think perhaps one of the biggest limitations around resources is connecting to those resources. I know they exist, but how do I get them?

A hub or inventory of available opportunities and willing partners could be a starting point for teachers. This could provide teachers with confidence and clarity when they feel ready to reach out.

In their interviews, teachers and principals pointed to some other ways that policy could be used to support partnerships and offer guidance in shared projects. Some teachers mentioned that they felt that engaging with partners to create unique learning opportunities involved taking a risk and required extra defense compared to more stereotypical classroom activities. One Nunavut teacher explains:

> As soon as we come out of the four walls, or of the paper and pen approach, or textbook approach to school, people worry about safety … And when you go deal with

> community, then you'll also lose control of curricula, or what's being taught, or the relationship that are being built. So from an administration standpoint, there's always questions… So, the support is there if you show that what you're doing is worthwhile, but it's not like you come in and the expectation is that it's going to happen. So, you have to kind of pioneer a bit and be the one pushing quite a bit

This loss of control can be intimidating and discouraging for teachers, and some don't possess the confidence to engage in the 'pioneering' or 'pushing' required to try something new. Another teacher confessed, "I think most people are scared or nervous to do that, to ask people to come in. If we have some kind of, not liaison officer, but some kind of community outreach person, it would be so much easier." Policy providing direction in where to start and how to proceed with a partnership could help normalize the practice and give confidence to teachers who are seeking connection in the community. Policy also has the capacity to give teachers some backing and defense when engaging in the alternative activities that result from partnerships.

4.7 Conclusion

Through the data collected from the 10 unique school divisions of this study, commonalities exist among teachers from across the country. The majority of teachers and principals mention partnerships in ESE, highlighting their value, despite policy offering little to guide them in this type of educational pursuit. When all divisions were considered together, teachers were more likely to bring up partnerships examples than principals. A wide variety of partners were mentioned by teachers and principals, however the vast majority of identified partners were NGOs. Though the contexts of this comparative case study varied greatly, generalizations and trends can be drawn regarding Canadian educators' connections with partners in ESE.

There were some examples of regional variation in ESE partnership practice. The highest engagement with partners seemed to exist where mentions of partnerships in policy were also most common. There was also a tendency for interviewees in rural divisions to mention more partnerships than those in urban divisions. Interviews revealed that in smaller communities partners may be more motivated to engage with schools in order to invest in the future of the town through connection with the youth. Partners that were mentioned by name by more than one interviewee also tended to be specific to a certain area, showing the potential for an organization to get noticed by teachers and principals by being active in a particular region.

Geographical differences seemed to have some impact on the level of engagement with partners, indicating the potential for context and culture to influence the degree to which teachers and principals connect with partners in ESE practice.

The collected field data suggest that partnerships have a tendency to be personal to an individual educator. The vast majority of partners were mentioned by only one person, indicating that these connections were established independently. Interviews reinforced the idea that teachers are the primary initiators of partnerships, in the effort to make ESE lessons more authentic and engaging for their students. The existence of some 'super-connector' teachers, who mentioned many more partnerships than average, also highlights the fact that teachers tend to engage with partners to a different degree based on their own personal motivation and connectedness.

Partnerships were seen to support ESE in a wide variety of ways. Partnerships that were described offered material, financial, informational, and human resources. ESE was enhanced by these partnerships, as teachers were able to offer meaningful presentations, field trips, and hands-on activities. In multiple cases, partnerships facilitated the creation and maintenance of school gardens. The activities made possible through partnership had a positive impact on student engagement and emotion, resulted in a stronger sense of connection and community, and had the potential to inspire new sustainable action and policy in schools. The most meaningful and effective partnerships seem to be the result of those in which support is multi-faceted and both parties are mutually invested in the final goal.

Teachers and principals identified several struggles with partnerships in their ESE practice. The most common struggle was the result of the tendency for partnerships to be so individually based. When partnerships depend on a single teacher or principal, a relationship can be lost when that individual leaves a school. Partnerships may also have the potential to disintegrate when there is a power imbalance between parties, and a partner backs out, negating the invested work of a teacher or leaving them with a mess to clean up. Partnership breakdown can also occur as the result of poor communication either within the partnership or with others affected by partnership activities. Policy has the potential to offer frameworks for partnerships to ensure continuity and clear communication. Policy also could help promote ideas for partnerships, highlight willing partners, and give confidence and security to teachers and principals who choose to engage with an out-of-school entity in their ESE practice.

The data could be interpreted to suggest that some external partners are in a position of power regarding the direction of ESE learning, and emphasized topics. For example, more than one teacher mentioned engaging with Agrium's (now Nutrien's) Caring for our Watersheds student contest. Similarly, teachers in three different provinces mentioned receiving grant money from Toronto Dominion Bank through their Friends of the Environment Fund. Because these entities have ability to grant or withhold money, they are able to promote certain activities and focus attention on environmental topics of their choosing. Also, in each of these cases the interviewee included corporate name when they mentioned the program or grant. For example, instead of simply referring to the Caring for our Watersheds program, each teacher named it as Agrium Caring for our Watersheds program. This makes it clear that it has been a priority for these partnering entities to enhance their reputation through their efforts.

There was no indication from this research that teachers were concerned about partners influencing learning outcomes. Interviewed and surveyed teachers and principals did not express concern that partners were influencing the direction of lessons. They were not specifically questioned about this, however it is still notable that these types of concerns were not mentioned in their partnership stories or described struggles. This could indicate that they have not received guidance to proceed with caution or that they do not feel they have the time to be overly critical of opportunities that are available to them. It is likely also reflective of the fact that though there were cases in which businesses and industry were seen to be actively engaging with schools in Canada, these cases were rare and only mentioned as partners in a few interviews. Business and Industry were also not rated as involved to a great extent on surveys. All entities have their own motivation for entering a partnership, however non-profit organizations tend to be much less threatening by nature because they are not typically motivated to advertise, sell, or promote consumerism to increase their own capital. This is not to say that external influence should not be a concern in Canadian education, as our society continues down a neoliberal path, but rather that education policy makers should be encouraged to proactively address the possible negative outcomes before they become more popular.

Chapter 5: Discussion

The findings of this study are brought together with the review of the literature and Canadian policy documents to describe ways in which Canadian teachers are engaging with partners in ESE, and how educational policy can continue to improve in response to research studies such as this one. The following discussion outlines how gaps in the literature were addressed through the work of this thesis, and what the findings contribute to other current research and writing in this field. Suggestions for how policy makers could respond to this research are offered, along with a set of guidelines to help structure and guide the creation of new partnership policies. Directions for future research on this topic are presented, in the hope that work will continue to promote meaningful and valuable partnerships in ESE.

5.1 Contributions to the Literature

Research shows the value of including ESE in public education. Effective ESE is recommended to include inquiry (Hill, 2002), action, (UNESCO, 2017), and opportunity for student empowerment (Jensen & Schnack, 1997). Land-based and place-based learning is also encouraged to give learning deeper meaning through connection to local places, people, and issues (Gruenewald & Smith, 2008; NAAEE, 2004). The literature suggests that these types of learning can be facilitated through partnerships (Hands, 2005; Mayes, 2010). The research of this thesis concurs, offering many specific examples of opportunities made possible through partnerships. Teachers and principals indicated that inspiration, resources, and funding for new initiatives were made possible through partnerships, including recycling programs, community gardens, and schoolyard transformations. Interviewees also confirmed the value of these types of experience, indicating that students participating in out of school experiences were more connected to the learning and their communities through partnership learning. Time and time again teachers and principals emphasized the value of partnerships when discussing ESE, and as such it is important that these types of relationships be guided and protected.

The literature review preceding analysis of the data for this thesis also suggested that caution is important when schools connect with partners to ensure outside ideologies do not negatively impact the goals and principals of ESE. Though teachers and principals did not clearly express this type of concern about connecting with partners, it can be seen that some

partnership programs fall in a gray area when their practices or the practices of their funders are considered. Several teachers mentioned involving students in WE Day activities. The WE Charity (formerly known as Free the Children) is a non-profit youth empowerment movement. They host WE Day rallies that gather world renowned speakers and pop-culture performers to motivate young people to take on social and environmental action projects (WE Charity, n.d.). An interviewed teacher describes, "we go to Vancouver and go to big shows where they kind of inspire you and you have all these different people and speakers, there they talk a lot about the environment too and it really gets the kids riled up." WE Charity's website provides examples of local and international challenges, stating for example that "by protecting Canada's lands and oceans we can help fight the effects of climate change," and "human actions such as deforestation, deep-ocean fishing, overharvesting of plant and animal species, as well as war and conflicts also contribute to biodiversity loss" (WE Charity, n.d.). The non-profit has several corporate sponsors including Nutrien (also the organizer of the aforementioned Caring for our Watersheds program), the largest producer of potash and second largest producer of nitrogen fertilizer in the world (CBC News, 2016). However, nitrogen pollution from industrial agriculture in waterways is an urgent global environmental challenge (Kanter, 2019). Another sponsor of the WE Day charity and event is Unilever, one of the world's largest producers of consumer goods, and the world's biggest buyer of palm oil (Dupont-Nivet, 2017). It has been found that palm oil plantations significantly contribute to deforestation in tropical countries, biodiversity loss, and greenhouse gas emissions (Barthel et. al, 2018). Certainly, it is good that students are inspired by events such as WE Day, however the point could be argued that attention should be drawn to the minimization of the environmental impacts of these corporate entities, before their money is directed toward encouraging youth to solve the problems that they have a hand in creating.

The interviews of this study confirmed reasons presented in the literature for partnerships to be unsuccessful. Hands (2005) and Sanders (2001) both pointed out that teachers who feel uncertain about partnerships or fear scrutiny, might be hesitant to connect with partners. Interviewees occasionally described the reluctance of other teachers that they knew to initiate involvement with partners for these reasons. Hands (2005) identified that lack of clarity and poor communication could result in unexpected or disappointing outcomes. One particular teacher described situations in which she had connected with large scale businesses, and that these

partners had left her in a difficult position when they ceased to uphold their side of the relationship. Research also points out that time and money are restrictive factors for teachers interested in trying anything new in their practice. Several interviewees mentioned that their ESE projects rely on continued funding from out-of-school partners, and that their programs could fall apart if funding stopped. All of these inhibitive elements have the potential to be addressed through the creation of well-structured policy.

The literature review of this study identified principals as "gatekeepers of change" in schools (Fullan & Stiegelbauer, 2001, 144), however when it comes to partnerships, the current study found that teachers were the primary initiators and actors. Though principals have the power to direct or discourage various school activities, it is the teachers who created and took action in the planning of educational activities for their students. Teachers were much more likely than principals to name specific partners, describe partnership experiences, and also clearly identify partnership struggles. As such, educational policy should inform principals of the value of partnerships, but also focus direction and guidance toward teachers and their practices.

5.2 Implications for ESE Policy and Practice

It was pointed out in the literature review that ESE curriculum and policy has room for further development across the provinces and territories of Canada (Beveridge et al., 2019; CEGN, 2006). Policy is especially unclear regarding community outreach and engagement with partners to meet ESE goals (Beveridge et al., 2019; Hands, 2005). This was confirmed through the review of policy documents for the work of this thesis. While highlighting successes of partnerships already in place, these documents provided little to no guidance for the establishment of new partnerships. It may be confusing for a teacher or principal to see the celebration of partnerships to accomplish school sustainability goals, and feel encouraged, yet find little to no direction or support in this type of effort. Policy makers should recognize that teachers and principals are engaging with partners despite the lack of guidance, and should be encouraged to structure policy to maximize the possible benefits of partnerships, while ensuring the goals of ESE are not jeopardized. Some similarities were found between a region's policy and practices. The research of this thesis shows that policy that celebrated partnerships was more common in places where partnerships seemed the most prevalent. There is certainly room in ESE policy across the country to recognize that partnerships are a significant part of ESE and respond

by including more clear encouragement and guidance for teachers and principals in curricula and other policy documents.

Out of classroom connection and experience in the local community and natural environment is argued by the literature to be a valuable component of ESE (Hill, 2002; NAAEE, 2004; Tilbury and Wortman, 2004; Wals and Benevot, 2017). Yet ESE-specific curriculum in Canada, where it exists, does not consistently encourage or direct this type of activity. Perhaps this aspect of ESE is lost due to the trend to address sustainability concepts within existing curriculum instead of creating stand-alone sustainability courses and programs. Since the curricula of other courses does not highlight the value of partnerships or out of school connections, encouragement and direction regarding these types of activities is lost. It is valuable to incorporate ESE themes into existing courses to show that environmental degradation impacts all aspects of life, however important ESE learning opportunities must not be neglected if they do not fit into the curriculum of other subjects. As such, environmental sustainability themes should continue to be addressed in all courses, and also be offered as an independent subject of study in which citizenship and community connection are emphasized.

Despite the lack of policy addressing partnership practice, out-of-school connections still seem prevalent in a wide variety of settings across the country. This indicates a divide between policy and practice in this area. Though relatively unguided by policy, the majority of teachers and principals noted partnerships in their interviews. The research of this thesis showed that it is common for Canadian educators to seek out opportunities to teach ESE in new ways, and that they are motivated to independently reach out to community partners and/or to be receptive to the invitations made by partners. In many cases, teachers are willing to make the extra effort to connect with a partner to achieve their goals, however it was also mentioned that time and lack of confidence are restrictive factors. Though teachers mentioned that sometimes partnerships come easily, this is not always the case and many teachers do not feel they have the time or support to seek out resources and connections that they know could enrich their ESE lessons.

The collected data of this research seems to indicate that there is some relationship between policy and practice with regard to partnerships. Partnerships were more likely to occur in some regions over others. Higher than average numbers of partner mentions occurred in British Columbia and Manitoba. The ESE policies of these provinces were noted earlier as having the most encouragement and celebration of partnerships in policy. Perhaps policy was

normalizing partnerships and influencing teachers, or else in those places there were simply more partnership examples for policy to report on. In regions in which partnerships were recognized in policy documents, many of the organizations that were mentioned at the division or ministry level were the same partners mentioned by individual teachers. For example, British Columbia documents note partnerships with BC Hydro to provide funding and resources, and the University of British Columbia through the Think and Eat Green @ School initiative. More than one British Columbia teacher mentioned connecting with each of these same programs.

It is interesting that more partnerships seem to be occurring in rural settings. Interviews suggested that this was due to higher community investment in the school and students in rural communities. School projects might be more visible to partners in small communities so they may feel more connected to the outcomes. Also, community members may feel more comfortable approaching a school and interacting with principals and teachers if they are familiar with the building and acquainted with the educators through other local connections. Community members may also be more motivated to invest in and connect with youth, if they feel that their local way of life depends on those students feeling connected and returning some day. If future policy does move in a direction to include more encouragement and guidance for partnerships it would be wise to seek counsel from local businesses and organizations who have entered school partnerships in the past, to seek to understand what common perspectives and motivations may exist from the outside party.

It could also benefit policy makers to reach out to super-connectors. The research of this thesis showed that partnerships are most often initiated by teachers, and that some teachers connect with many more partners than others. These super-connecters have the potential to provide insight from the teacher perspective based on multiple partnership experiences. Receiving input from these teachers could help policy makers understand what is happening regarding partnerships in their own context. This could include information regarding what partners are active in the community and whether they may be willing to partner with more teachers, how the creation of new partnerships could be prepared for, and what struggles have occurred locally.

In an effort to make partnership initiation easier and more secure, policy documents could include databases of partners willing to connect with classes or schools to offer funding, expertise, human resources, or lesson information. Potential partners could be vetted by a policy

maker before being added to the list to ensure they meet discretionary guidelines, and these partners could be made aware of appropriate ways to engage and interact with teachers and principals before any connection takes place. Teachers and principals in this study did not seem concerned about partners overstepping and influencing the content or direction of lessons, however literature shows that there is potential for this. Teachers and principals may not feel they have the time to critically examine partners or their resources, so to have a person designated for this could ensure a standard of practice is maintained. A registry like this could also give teachers peace of mind and assurance that their administration and the school community will support their partnership. It may also encourage new outside organizations to engage with schools, if they understood that schools were open to relationship. A list of willing partners and available resources is just one example of how policy has the potential to promote more partnership activities.

Policy offering direction on how to set up and maintain a positive relationship, once contact is established, could have a positive impact on partnership outcomes (see Appendix G). A document or guide outlining questions for each side of the partnership could ensure that communication is clear and that both parties understand the expectations for engagement with one another. Questions could include expectations for what each side is willing to contribute, what each side hopes to gain, what the desired outcome is for the students, and how often contact is expected and for how long. This type of guidance could offer confidence to a teacher, principal, or partner, who is hesitant to try something new or unsure how to get a project off the ground. It is important that the guidance be clear, but simple and not inhibitive or burdensome for teachers. Answers to questions like these have the added benefit of helping to explain a partnership to students, school administrators, parents, and other community members. A clear written plan may also assist in the continuance of partnership when individuals leave or enter the relationship. Partnerships that lack clearly written plans may seem quicker and easier in the short term, but run the risk of necessitating more time and attention as they unfold.

When possible, multifaceted and long-term partnerships should be encouraged. Some of the most successful partnerships stories from across the country involved partners that were invested in a class or school project in a myriad of ways over a significant span of time. These partnerships often involved contact and relationship with a support person or liaison that could assist by offering expertise, advice, or simple regular contact. This type of contact has the

potential to help ensure that both sides are equally invested in the success of a project. These types of relationships also demonstrate to students that there is no quick fix for environmental sustainability. We cannot recycle a bottle, or change a light bulb and consider the job done. Rather, transforming our society to be more sustainable will be the result of commitment, perseverance, and teamwork. These are the types of lessons made possible by partnerships that have the potential to foster the development of engaged citizens, who understand change is possible and positive.

5.3 Implications for Future Research

The scope of SEPN's national research project, from which the data of this thesis was drawn, was broad. It was valuable to access interviews from across the country, however the interviews lacked depth on the specific topic of partnerships. In order for new policy to be developed that supports partnerships in ESE practice, more research should be carried out to inform a protocol for best practice and communication in the initiation and maintenance of partnerships. For example, this thesis exclusively analysed data collected from teachers and principals, and as such, focused on their perspectives, however all partnerships involved an individual or group from outside the school and it would be valuable to also interview these external partners. Future research to offer insight on the perspective of both sides of the partnership could offer a deeper understanding of how these relationships are initiated and developed. It is recommended that opinions from local teachers, principals, and their partners be considered to inform policy that intends to guide partnerships, to ensure direction is sensitive to the specific needs of those it intends to serve.

Another weakness of using pre-existing data for this research is that the interview, heat diagram survey, and national survey questions were not created to meet the specific research questions of this thesis. For example, the number of time that teachers and principals mentioned specific partners were used to gauge the frequency to which they engaged with partners. The national survey that was conducted was close to asking this question, however it was narrowed to relate to activities of community outreach. Respondents may have answered differently had they been asked how often they engage with partners overall, or with what types of partners they engage in general. More insight regarding the level of engagement between teachers, principals, and partners in ESE could result from a survey more focused on this specific topic.

The research of this thesis is relatively unique in the field as it highlights both positive and negative outcomes of partnerships in ESE. Future researchers should be encouraged to not focus solely on the benefits or risks of partnerships, but rather look for ways to guide teachers and principals and help them optimize positive outcomes for their students. It is clear that partnerships are beneficial and provide learning opportunity that would otherwise be unavailable. Doing away with all partnerships for fear of misaligned motivation or detrimental consequences could do more harm than good. Rather, teachers and principals should be guided so that they are able to enter and navigate partner relationships with confidence and ease, having considered possible outcomes, and able to optimize student experience for transformative learning.

It is still not clear whether increased partnership activity in some provinces was the result of policy guiding practice, if practice is impacting the creation of new policy, or if both are developed in response to the greater social context. Future research could ask more pointed questions of educators to investigate how they decide to carry out ESE programming, and more specifically what factors encourage or discourage their engagement with partners. It would also be interesting for future research to examine partnerships between teachers and out-of-school entities in Alberta and Saskatchewan, where the economy is more strongly dependent on extractive industries, and consider how local culture and political contexts may be influencing ESE practice in this area.

5.4 Conclusion

The ambiguity of partnerships being advantageous or threatening to student learning suggests a need for policy to guide these partnerships for several main reasons. First, teachers and principals who feel uncertain about engaging with partners may be less likely to take advantage of opportunities that may be available to them, especially considering the extra time and energy required to establish these partnerships without clear guidance (Hands, 2005, p. 81). Teachers may also hesitate initiating or engaging in a partnership to avoid risk or scrutiny, should the responsibility of a partnership fall exclusively on their shoulders (Sanders, 2001, p. 21). A clear policy could have the potential to encourage hesitant teachers to engage and experience the benefits of partnerships in their community. Simultaneously, a directive policy could have the capability to ensure success of a partnership and avoid pitfalls. For example, Hands (2005) points out that partnerships may be co-opted by one party or fail to meet their goals if there are misunderstandings or lack of clarity in the initiation of the partnership (p. 77).

An explicit policy regarding appropriate ways for teachers and principals to engage with partners could encourage the careful consideration required to ensure consistency, teacher confidence, and safeguarding of the primary objectives of ESE in these situations.

Scholars have already constructed guidelines for educators and schools concerning engagement with organizations, though none were found from within Canada. In these cases there seems to be more concern about advertising, marketing, and the promotion of Neoliberal ideologies that counter the direction of transformative sustainability education. Molnar (2001) lists a series of questions that could be asked by policy makers regarding involvement of organizations, businesses, and corporate entities in schools. The list includes a challenge to consider the principles promoted by the partner and whether they align with school goals and how sponsored educational materials are reviewed and by whom. Huckle (2013) reminds teachers, principals, and policy makers that all potential partners should be proven to wholly promote citizenship education, emphasizing social agency, justice, and envisioning of sustainable futures that transcend our current ways of living. These factors should be considered before a principal or teacher opens school or classroom doors to outside influence, and endorses an entity through partnership. These suggestions could offer a starting point of consideration for policy makers in their work to offer partnership guidance that will promote ESE and challenge our unsustainable status quo.

Through the work of this thesis, other considerations for policy regarding partnership were identified. Policy makers should have the goal to simplify the process for teachers and principals to connect with appropriate partners. Students can benefit from the resources and opportunities provided by partnerships and educators should not be discouraged or inhibited to partner by constraints on time or awareness. Administrators, school boards, and division representatives should be clear and on the same page in support of appropriate partnerships. Community members should also be made aware of the potential to connect with schools to support learning, and guidance should be provided to facilitate communication to all parties as relationships unfold. Though clear communications is important, it is important that policy that directs partnerships not be burdensome, but rather created with the intent to increase the confidence of teachers and principals and ensure partnerships are mutually beneficial and multifaceted. Neglecting to provide guidance through policy and curriculum will result in the loss of opportunities for students to engage in transformative powerful learning. Or worse,

continuing unguided partnerships could result in miscommunication and negative outcomes, with the potential to shut down future partnerships or incite policy that restricts these types of relationships.

This project was initiated with the intention to highlight the struggles and successes of teachers reaching out of their classrooms into the community in an effort to create more authentic and inspiring ESE. As a teacher myself, I was most comfortable engaging with the interviews of other educators, and considering recommendations for them. However, through the project, I was increasingly compelled for the message to be directed toward policy makers, who have the potential to support teachers who are already going over and above the expectations presented to them in curriculum and other policy. My work with the Sustainability and Policy Network has also increased my confidence in approaching and relating to policy makers and researchers. My personal teaching practice will be forever altered as a result of the work of this thesis. I have been encouraged and inspired by stories from across the country. This has built my confidence in engaging with partners of my own to inspire and encourage my future students. I am also encouraged by the voices of these educators to remain hopeful while working in a field that can seem overwhelming, due to the extent of current environmental challenges. I will remember that though this work can feel lonely, I am in the company of many others who recognize that we must do our best for our children and the world they will inherit.

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APPENDICES

Appendix A: Site Analysis Interview Consent Form

SEPN
The Sustainability and Education Policy Network

PARTNER ORGANIZATIONS
Association for the Advancement of Sustainability in Higher Education
Canadian Centre for Policy Alternatives
David Suzuki Foundation
Learning for a Sustainable Future
Sierra Youth Coalition

CONTRIBUTING ORGANIZATIONS
Assembly of First Nations
Canadian Federation of Students
Global Youth Education Network
Métis National Council
Sustainability Solutions Group

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(306)966.2319

www.sepn.ca

Social Sciences and Humanities Research Council of Canada / Conseil de recherches en sciences humaines du Canada
Canada

INTERVIEW CONSENT FORM

The Sustainability and Education Policy Network (SEPN) is a network of researchers and organizations advancing sustainability in education policy and practice across Canada. Based at the University of Saskatchewan, SEPN is the first large-scale, national-level research collaboration to collect and analyze comparable data at all levels of education.

This study asks about the degree to which a sustainability focus is included in practices and policies in your work or study setting and about the drivers and barriers to sustainability uptake.

By participating in this study, you will help us identify how education policy and practice can better support the transition to more environmentally sustainable societies.

Project Title: Sustainability and Education Policy Network: Leading Through Multi-Sector Learning, funded by Social Sciences and Humanities Research Council

Researcher: Dr. Marcia McKenzie, Principal Investigator, Department of Educational Foundations; Director, Sustainability Education Research Institute, University of Saskatchewan, 306-966-2319, marcia.mckenzie@usask.ca

Procedure:
- This study will explore your experiences of sustainability in your setting
- We will start by asking you some general questions about sustainability and then we will ask you about sustainability policies and initiatives happening in your setting. You will be asked to rate your institution's sustainability initiatives
- This interview should take approximately 1 hour
- We will be audio-recording and creating transcripts from the recordings

Potential Risks:
- There are no anticipated risks to you by participating in this research

Benefits:
- Interested participants will be provided with a summary of the research results
- There are several possible benefits to participating in this study including contributing to the research on sustainability policy and practice in Canadian schools; connecting your school, school division, ministry, or institution with a national network that is on the cutting edge of school sustainability; and showcasing and celebrating your school's sustainability successes while highlighting areas for improvement

Confidentiality:

- Your identity and responses will be kept confidential
- You will be assigned a pseudonym by the researchers, which will be used for any quotations we use from you when reporting results. We will keep a list of participants and their pseudonyms that will only be accessible to the researchers
- Consent forms will be stored separately from data collected to ensure there will be no way to identify individual participants. Any identifying information you put on paper today will be removed when we enter it into our database
- Whether you choose to participate or not will have no effect on your position (e.g., employment, class standing, access to services) or how you will be treated

Right to Withdraw:

- Your participation is voluntary. You can choose to answer only those questions that you are comfortable with or knowledgeable about
- You may withdraw from the research project for any reason without explanation or penalty of any sort. Your right to withdraw will apply until we have disseminated the research results. If you wish to withdraw from the study, you may contact Nicola Chopin, Project Manager, at (306) 966-2319 or nicola.chopin@usask.ca

Storage of Data:

- The results of this study will remain confidential. The data will be entered into a database and stored until 2028 at which point it will be destroyed

Questions or Concerns:

- If you have questions during this process, please ask the researchers
- If you have questions afterwards, please contact Nicola Chopin, Project Manager, at (306) 966-2319 or nicola.chopin@usask.ca
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca, (306) 966-2975, or toll free (888) 966-2975

Signed Consent

My signature below indicates that I have read and understand the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records

Name of Participant	Signature	Date

☐ Yes, I would like to receive the results of this study

☐ Yes, I would like to receive updates on other SEPN research

If yes to either, please provide your email address: _____

Researcher's Signature	Date

www.sepn.ca

Appendix B: Site Analysis Phone Interview Consent Form

SEPN
The Sustainability and Education Policy Network

PARTNER ORGANIZATIONS
Association for the Advancement of Sustainability in Higher Education
Canadian Centre for Policy Alternatives
David Suzuki Foundation
Learning for a Sustainable Future
Sierra Youth Coalition

CONTRIBUTING ORGANIZATIONS
Assembly of First Nations
Canadian Federation of Students
Global Youth Education Network
Métis National Council
Sustainability Solutions Group

INTERVIEW CONSENT FORM - PHONE

The Sustainability and Education Policy Network (SEPN) is a network of researchers and organizations advancing sustainability in education policy and practice across Canada. Based at the University of Saskatchewan, SEPN is the first large-scale, national-level research collaboration to collect and analyze comparable data at all levels of education.

This study asks about the degree to which a sustainability focus is included in practices and policies in your work or study setting and about the drivers and barriers to sustainability uptake.

By participating in this study, you will help us identify how education policy and practice can better support the transition to more environmentally sustainable societies.

Project Title: Sustainability and Education Policy Network: Leading Through Multi-Sector Learning, funded by Social Sciences and Humanities Research Council

Researcher: Dr. Marcia McKenzie, Principal Investigator, Department of Educational Foundations; Director, Sustainability Education Research Institute, University of Saskatchewan, 306-966-2319, marcia.mckenzie@usask.ca

Procedure:
- This study will explore your experiences of sustainability in your setting
- We will start by asking you some general questions about sustainability and then we will ask you about sustainability policies and initiatives happening in your setting. You will be asked to rate your institution's sustainability initiatives
- This interview should take approximately 1 hour
- We will be audio-recording and creating transcripts from the recordings

Potential Risks:
- There are no anticipated risks to you by participating in this research

Benefits:
- Interested participants will be provided with a summary of the research results
- There are several possible benefits to participating in this study including contributing to the research on sustainability policy and practice in Canadian schools; connecting your school, school division, ministry, or institution with a national network that is on the cutting edge of school sustainability; and showcasing and celebrating your school's sustainability successes while highlighting areas for improvement

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Canada

Confidentiality:

- Your identity and responses will be kept confidential
- You will be assigned a pseudonym by the researchers, which will be used for any quotations we use from you when reporting results. We will keep a list of participants and their pseudonyms that will only be accessible to the researchers
- Consent forms will be stored separately from data collected to ensure there will be no way to identify individual participants. Any identifying information you put on paper today will be removed when we enter it into our database
- Whether you choose to participate or not will have no effect on your position (e.g., employment, class standing, access to services) or how you will be treated

Right to Withdraw:

- Your participation is voluntary. You can choose to answer only those questions that you are comfortable with or knowledgeable about
- You may withdraw from the research project for any reason without explanation or penalty of any sort. Your right to withdraw will apply until we have disseminated the research results. If you wish to withdraw from the study, you may contact Nicola Chopin, Project Manager, at (306) 966-2319 or nicola.chopin@usask.ca

Storage of Data:

- The results of this study will remain confidential. The data will be entered into a database and stored until 2028 at which point it will be destroyed

Questions or Concerns:

- If you have questions during this process, please ask the researchers
- If you have questions afterwards, please contact Nicola Chopin, Project Manager, at (306) 966-2319 or nicola.chopin@usask.ca
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca, (306) 966-2975, or toll free (888) 966-2975

Oral Consent

Interviewer to read: Did you receive the consent form I emailed to you? Have you had a chance to review it? Do you have any questions before we proceed with the interview? *(Interviewer to address any questions the participant may have)*

I read and explained this Consent Form to the participant before receiving the participant's consent, and the participant had knowledge of its contents and appeared to understand it.

Name of Participant	Researcher's Signature	Date

☐ Yes, the participant would like to receive the results of this study

☐ Yes, the participant would like to receive updates on other SEPN research

If yes to either, please provide participant's email address: _____

www.sepn.ca

Appendix C: Site Characteristics

Province	School Division	Location	Sustainability Uptake Score (Group)	Language	Primary School (PS) or High School (HS)	School
BC	Nechako Lakes	Rural	1 (Low)	English	PS	David Hoy
					HS	Nechako Valley
	Vancouver	Urban	2 (High)	English	PS	Tyee Montessori
					HS	Windermere
MB	Seven Oaks	Urban	1 (Low)	English	PS	H.C. Avery
					HS	Maples
	Gimli	Rural	3 (High)	English	PS	SSES
					HS	Gimli
ON	Ottawa-Carleton	Urban	3 (High)	English	PS	Pinecrest
					HS	Cairine Wilson
QC	ETSB	Rural	1 (Low)	French	PS	ADS
					HS	Richmond
	Montreal	Urban	2 (High)	English	PS	St. Justin
					HS	LJP
NB	Anglo-East	Rural	0 (Low)	English	PS	Salem
					HS	Tantramar
	Franco-Sud	Rural	0 (Low)	French	PS	MFB
					HS	Rogersville
NU	Qiqkitani	Rural	0 (Low)	English/ Inuktitut	PS	Joamie Illinniarvik
					HS	Inukshuk

Note: Sustainability uptake score was determined in the document analysis phase of the SEPN project. School divisions were given one point for each of the following three criteria: development of sustainability-specific policies, participation in eco-certification programs, and the existence of sustainability staff. Divisions with a score of 0-1 were grouped as low uptake, and those with a score of 2-3 were grouped as high uptake.

Appendix D: Survey

SEPN
The Sustainability and Education Policy Network

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CONTRIBUTING ORGANIZATIONS
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Canada

NATIONAL SURVEY
EARLY CHILDHOOD EDUCATION TO GRADE

The Sustainability and Education Policy Network (SEPN) is a network of researchers and organizations advancing sustainability in education policy and practice across Canada. Based at the University of Saskatchewan, SEPN is the first large-scale, national-level research collaboration to collect and analyze comparable data at all levels of education. This survey asks about the degree to which a sustainability focus is included in practices and policies in your work or study setting and about the drivers and barriers to sustainability uptake.

Participants must be involved with the education system in Canada. To participate in part 1 of the survey, you should have some awareness of at least one of the following:

- Existing sustainability practices in your work or study setting
- Drivers that have supported the development of sustainability practices in your work or study setting
- Barriers that have hindered the development of sustainability practices in your work or study setting

To participate in part 2 of the survey, you should have some awareness of:

- Whether there are any policies that address sustainability in your work or study setting, and if so, factors that may have contributed to their development and implementation

Please **share the survey link** with anyone you feel might be able to answer this survey. Multiple surveys can be completed from one setting. The survey should take approximately 15-20 minutes to complete.

ETHICS CONSENT FORM

Project Title: Sustainability and Education Policy Network: Leading Through Multi-Sector Learning, funded by Social Sciences and Humanities Research Council

Researchers: Dr. Marcia McKenzie, Principal Investigator, Department of Educational Foundations; Director, Sustainability Education Research Institute, University of Saskatchewan, 306-966-2319, marcia.mckenzie@usask.ca

Dr. Randolph Haluza-DeLay, Associate Professor, Department of Sociology, King's University College, 780-465-3500 (ext. 8063), randolph.haluza-delay@kingsu.ca

Potential Risks and Benefits:

- There are no anticipated risks to you by participating in this research
- Interested participants will be provided with a summary of the survey's results

Compensation:

- Participants can enter a draw for one of 80 pre-loaded $40 VISA gift cards and one of three $150 gift certificates for a bookstore of your choice. The contact information you provide to enter into the draw will not be associated with your survey responses in any way

Confidentiality and Right to Withdraw:

- Your survey responses are anonymous and confidential
- Only aggregate data will be reported so there will be no way to identify individual participants
- Whether you choose to participate or not will have no effect on your position (e.g., employment, class standing, access to services) or how you will be treated
- Your participation is voluntary. You can choose to skip questions and answer only those you are comfortable with or knowledgeable about
- You may withdraw from the research project for any reason without explanation or penalty of any sort. Your right to withdraw data from the study will apply until you have submitted your survey. After this time, it may not be possible to identify which survey data are yours to withdraw your responses

Questions or Concerns:

- For questions while completing the survey, please contact Nicola Chopin, Project Manager, at (306) 966-2319 or nicola.chopin@usask.ca
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca, (306) 966-2975, or toll free (888) 966-2975

Consent:

By completing and submitting the questionnaire, **YOUR FREE AND INFORMED CONSENT IS IMPLIED** and indicates that you understand the above conditions of participation in this study.

INTRODUCTORY QUESTIONS

1. In which province or territory are you located?

○ Alberta	○ Nova Scotia	○ Québec
○ British Columbia	○ Northwest Territories	○ Saskatchewan
○ Manitoba	○ Nunavut	○ Yukon
○ New Brunswick	○ Ontario	
○ Newfoundland and Labrador	○ Prince Edward Island	

2. Which one of the following best describes the current work or study setting for your primary role? *(Pick only one)*

○ Early Childhood Education to Grade 12 School	○ School Board, Division, or District	○ Provincial Ministry of Education

3. What is your primary role?

○ Teacher	○ Custodian	○ Director of Education
○ School staff member	○ Facilities manager	○ Ministry of Education staff
○ School administrator	○ Sustainability officer/ coordinator	○ Minister or Deputy Minister of Education
○ Principal	○ Superintendent	○ Other *(Please specify)*: _____
○ School board staff		

4. If you work for a school board, division or district, please write its name:

_____

5. If you work for a provincial ministry of education, please indicate which ministry you work for:

○ Ministry of Education
○ Ministry of Advanced Education

SUSTAINABILITY DEFINITIONS

6. Which of the definitions below **best matches** the concept of sustainability **most commonly used in your setting**? *(Check all that apply)*
   - ☐ Protecting or concerned with the natural environment
   - ☐ Interconnection between social, environmental, and economic concerns
   - ☐ Meeting the needs of the present as well as of future generations
   - ☐ Based in Indigenous knowledge and worldviews
   - ☐ A focus on a sustainable economy
   - ☐ Other *(Please specify)*: _____
   - ☐ I don't know
7. Which of the definitions below **best matches your own** understanding of sustainability? *(Check all that apply)*
   - ☐ Protecting or concerned with the natural environment
   - ☐ Interconnection between social, environmental, and economic concerns
   - ☐ Meeting the needs of the present as well as of future generations
   - ☐ Based in Indigenous knowledge and worldview
   - ☐ A focus on a sustainable economy
   - ☐ Other *(Please specify)*: _____

Instructions

When responding to the survey questions, please:

- Answer the questions in relation to **your entire work or study** setting, not just for the particular unit or department in which you work or study,
- Answer in relation to *current* practices and policies, and
- Answer the questions to the best of your knowledge.

Use the following definitions to answer the survey:

	Definition
Management/ Governance	Overall vision, policies, leadership, and management of a school or institution (e.g., strategic plan, mission statement, budget)
Curriculum	Any academic programs, curriculum, or policies that incorporate sustainability (e.g., academic plan, sustainability course)
Operations/Facilities	Related to physical buildings and facilities management (e.g., water or energy conservation, transportation, composting, operations plan)
Research	Partnerships related to research about sustainability (e.g., with post-secondary institutions, non-governmental organizations, government agencies)
Community Outreach	Collaborations between the educational institution and community members or organizations in relation to sustainability initiatives (e.g., community gardens, community-based teaching)
Sustainability	Any use of the term 'sustainability' which, at minimum, must address concern for the natural environment
Policy	A high level governance document (be it a policy, plan, strategy, or mandate) that addresses sustainability uptake in an institution, school division, or Ministry

SUSTAINABILITY IN PRACTICE

This part of the survey asks about sustainability practices at your setting within management/governance, curriculum, operations/facilities, research, and community outreach. To participate in this part of the survey, you should have some awareness of existing sustainability practices in your work or study setting. Please refer to the definitions provided as needed and answer the questions to the **best of your knowledge** and in relation to **your entire work or study setting**, not just for the particular unit or department in which you work or study.

1. How knowledgeable are you of:

	Not At All	Somewhat	Moderately	Extremely
Whether or not there is a **focus on sustainability practices** in your setting?	☐		☐	

If you answered "Not at All Knowledgeable," please skip to page 10, "Drivers and Barriers"

2. To your knowledge, is sustainability taken into account in the overall <u>management or governance</u> of your setting?
   - ○ Yes
   - ○ No *(Skip to page 6, question 3, "Curriculum")*

	Definition
Management/ Governance	Overall vision, policies, leadership, and management of a school or institution (e.g., strategic plan, mission statement, budget)

a. To what extent is sustainability integrated into the following areas of management or governance in your setting?

	Not at All	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
Overall vision *(e.g., strategic plan, mission statement)*					
Budgeting *(e.g., green fund, green scholarships, willingness to take on additional financial cost)*					
Investment *(e.g., endowment, socially responsible investment, green investments)*					

b. Are there any administrative staff or groups in your setting responsible for implementing sustainability? *(Check all that apply)*
   - ☐ Senior administration responsible for sustainability
   - ☐ Sustainability committee or working groups (ongoing)
   - ☐ Sustainability task force (temporary)
   - ☐ Sustainability officer, coordinator, or office
   - ☐ Other *(Please specify)*: _____
   - ☐ My setting does not have people or a group responsible for implementing sustainability
   - ☐ I don't know

c. To your knowledge, does your setting provide any sustainability training or orientations for the following groups? (*Check all that apply*)

- ☐ Students
- ☐ Teachers/faculty
- ☐ Facilities workers/operations staff
- ☐ Sustainability officer/coordinator
- ☐ Administrators
- ☐ Other *(Please specify)*: _____
- ☐ None of the above
- ☐ I don't know

d. Overall, to what extent do policies that address sustainability at your setting have measurable outcomes?

- ○ Not at all
- ○ To some extent
- ○ To a moderate extent
- ○ To a large extent
- ○ I don't know
- ○ Not applicable

e. In your setting, to what extent do policies that address sustainability require progress reporting towards meeting sustainability outcomes?

- ○ Not at all
- ○ To some extent
- ○ To a moderate extent
- ○ To a large extent
- ○ I don't know
- ○ Not applicable

f. How does your setting currently support the implementation of policies that address sustainability? (*Check all that apply*)

- ☐ Budget allocations specific to policy implementation
- ☐ Professional development (e.g. sustainability content training for educators)
- ☐ Sustainability consultants to aid in policy implementation
- ☐ Sustainability officers
- ☐ Other *(Please specify)*: _____
- ☐ My setting has not yet committed support specifically to policy implementation
- ☐ I don't know

g. Are there any other management or governance initiatives you are aware of that are furthering sustainability in your setting? Please describe them.

_____

_____

_____

_____

_____

3. To your knowledge, is sustainability taken into account in the overall curriculum of your setting?

- ○ Yes
- ○ No *(Skip to page 7, question 4, "Operations")*

Curriculum	Definition
	Any academic programs, curriculum, or policies that incorporate sustainability (e.g., academic plan, sustainability course)

a. To what extent do you feel that the following approaches have been used to include sustainability in curriculum throughout your setting?

	Not at All	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
New discipline-specific course(s) developed					
New interdisciplinary course(s) developed					
Integrated into existing course(s)					

b. To what extent are the following sustainability topics integrated into curriculum in your setting?

	Not at All	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
Management of natural resources *(e.g., energy or water management)*					
Intrinsic value of nature *(e.g., biological diversity, deep ecology)*					
Nature *(e.g., nature awareness, outdoor classrooms)*					
Economy *(e.g., economic systems as they relate to environment)*					
Justice *(e.g., social and ecological justice, human rights, ethics)*					
Citizenship *(e.g., democracy, governance, conflict resolutions)*					
Cultural *(e.g., art and environment, eco-literature)*					
Environmental health					
Consumerism					
Local issues					
Global issues					
Indigenous perspectives					
Sustainability *(e.g., conceptions and history of approaches to sustainability)*					
Alternative futures *(e.g., preparing for the future, responses to ecological disasters, alternative fuels)*					

4. To your knowledge, is sustainability taken into account in the overall operations or facilities of your setting?

- ○ Yes
- ○ No *(Skip to page 8, question 5, "Research")*

Operations/ Facilities	Definition
	Related to physical buildings and facilities management (e.g., water or energy conservation, transportation, composting, operations plan)

a. To what extent is sustainability currently integrated into the following areas of facilities management or operations within your setting?

	Not at All	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know	Not Applicable
Energy use *(e.g., lighting, insulation, energy efficiency)*						
Sustainable energy initiatives *(e.g., solar, wind, geothermal)*						
Building construction or renovation *(e.g., green building rating system)*						
Transportation *(e.g., bicycle lanes, electric or hybrid vehicles, shuttle buses)*						
Housing *(e.g., sustainable dorms, housing for staff near campus)*						
Cleaning *(e.g., use of environmentally friendly products)*						
Reducing release of hazardous chemicals *(e.g., no pesticide use, low-emitting paints)*						
Management of grounds *(e.g., school yard greening, water efficient landscaping)*						
Conserving water in buildings *(e.g., toilets, water management)*						
Dining *(e.g., biodegradable, donating extra food, composting food waste)*						
Recycling *(e.g., plastic, glass, electronics, waste oil, metals, paint)*						
Information technology *(e.g., suppliers must take back packaging, recycling)*						
Disposal of hazardous waste *(e.g., toxic waste, pharmaceutical waste, agricultural waste)*						

b. To your knowledge, has your setting tracked emissions using any of the following? *(Check all that apply)*

- ☐ Greenhouse gas emissions inventory
- ☐ Carbon footprint measurement
- ☐ Water footprint measurement
- ☐ Sustainability assessment or audit
- ☐ Other *(Please specify)*: _____
- ☐ None of the above
- ☐ I don't know

5. To your knowledge, does your setting conduct <u>research</u> on sustainability?

- ◯ Yes
- ◯ No *(Skip to page 9, question 6, "Community Outreach")*

Research

Definition

Partnerships related to research about sustainability (e.g., with post-secondary institutions, non-governmental organizations, government agencies)

a. Does your setting conduct any independent research of its own about sustainability practices or policies?

- ◯ Yes
- ◯ No
- ◯ I don't know

If yes, please describe:

_____

_____

_____

_____

_____

b. To what extent does your setting partner in some capacity with the following groups on research that addresses sustainability?

	Not at All	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
Government agencies					
Industry or business					
Non-governmental organizations					
Post-secondary institutions					
Other *(Please specify)*:					

c. Which of the following characterizes the types of research partnerships at your setting? *(Check all that apply)*

	International	National	Provincial	Local	I Don't Know	Not Applicable
Government agencies						
Industry or business						
Non-governmental organizations						
Post-secondary institutions						
Other (*Please specify*):						

6. To your knowledge, is sustainability taken into account in the overall community outreach of your setting?

- ○ Yes
- ○ No *(Skip to page 10, question 7, Drivers and Barriers)*

Definition

Community Outreach: Collaborations between the educational institution and community members or organizations in relation to sustainability initiatives (e.g., community gardens, community-based teaching)

a. To what extent does your setting engage with the broader community on sustainability in the following ways?

	Not at all	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
Public conferences or events					
Public awareness campaigns or education on sustainability					
Distributing printed Information created by your setting *(e.g., signs, newsletters, slogans, guides)*					
Public consultations on sustainability issues					
Seeking community representation on sustainability committees or initiatives					
Participating in community sustainability committees or initiatives					
Sharing resources *(e.g., expert knowledge)*					
Research collaborations with community					
Community action projects *(e.g., community garden)*					
Community-based teaching					

b. To what extent does your setting partner in some capacity with the following groups for community outreach about sustainability?

	Not at All	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
Government agencies					
Industry or business					
Non-governmental organizations					
Post-secondary institutions					
Other *(Please specify)*:					

c. Which of the following characterizes the types of community outreach partnerships at your setting? *(Check all that apply)*

	International	National	Provincial	Local	I Don't Know	Not Applicable
Government agencies						
Industry or business						
Non-governmental organizations						
Post-secondary institutions						
Other *(Please specify)*:						

DRIVERS AND BARRIERS

This part of the survey asks about drivers and barriers that may have influenced the development of sustainability practices at your setting. To participate in this part of the survey, you should have **some awareness** of drivers or barriers that have supported or hindered the development of sustainability practices in your work or study setting. Please refer to the definitions of drivers and barriers displayed below as needed and answer the questions to the **best of your knowledge** and in relation to **your entire work or study setting**, not just for the particular unit or department in which you work or study.

7. How knowledgeable are you of:

	Not At All	Somewhat	Moderately	Extremely
Drivers that influence the inclusion of **sustainability in practices** in your setting?				
Barriers that influence the inclusion of **sustainability in practices** in your setting?				

If you answered "Not at All Knowledgeable" to both questions, please skip to page 13, "Sustainability Policy Development"; otherwise, go to question 8

8. Please rate the extent to which the following have acted as drivers or barriers in implementing sustainability practices in your setting:

People and Settings	Strong Barrier	Somewhat of a Barrier	Neither Barrier nor Driver	Somewhat of a Driver	Strong Driver	Both a Driver and Barrier	I Don't Know
PEOPLE:							
Student involvement							
Teacher/faculty involvement							
Sustainability officer/coordinator involvement							
Operations staff involvement							
Administrator involvement							
Parents							
Involvement of individuals outside your setting							
Other *(Please specify):*							
RELATIONSHIPS:							
Relationships within your setting *(e.g., authority, who has say, resistors, interpersonal relations)*							
Channels of communication between different levels of personnel *(e.g., faculty and staff)*							
Channels of communication between government and your setting							
Other *(Please specify):*							

Please rate the extent to which the following have acted as drivers or barriers in implementing sustainability practices in your setting:

People and Networks	Strong Barrier	Somewhat of a Barrier	Neither Barrier nor Driver	Somewhat of a Driver	Strong Driver	Both a Driver and Barrier	I Don't Know
OTHER SETTINGS:							
Mandate from a governing body							
Desire to enhance reputation							
Competition with other settings							
Following the example of other settings							
Competing priorities *(e.g., time, literacy of students, different subject area expectations)*							
Restructuring pressures							
Financial incentives *(e.g., grants, scholarships)*							
Other *(Please specify):*							
NETWORKS AND MEDIA:							
Networks *(e.g., UNESCO, Regional Centers of Expertise)*							
Professional associations							
Conferences or seminars							
Social media							
Print or online resources *(e.g., news articles, news sites/documents)*							
Other *(Please specify):*							

Please rate the extent to which the following have acted as drivers or barriers in implementing sustainability practices in your setting:

Community and Place	Strong Barrier	Somewhat of a Barrier	Neither Barrier nor Driver	Somewhat of a Driver	Strong Driver	Both a Driver and Barrier	I Don't Know
COMMUNITY VALUES:							
Values within society that support sustainability							
Values within society that do not support sustainability							
Culture or expectations of surrounding community							
Indigenous knowledge and perspectives							
Political priorities regarding sustainability							
Other *(Please specify):*							
COMMUNITY PARTNERS:							
Community programs and initiatives							
Corporate partnerships							
Other *(Please specify):*							
PLACE:							
Institutional buildings and grounds *(e.g., building design, green space, common space)*							
Surrounding local businesses or organizations							
Surrounding natural environment							
Other *(Please specify):*							

Please rate the extent to which the following have acted as drivers or barriers in implementing sustainability practices in your setting:

Policies	Strong Barrier	Somewhat of a Barrier	Neither Barrier nor Driver	Somewhat of a Driver	Strong Driver	Both a Driver and Barrier	I Don't Know
International policies *(e.g., Kyoto declaration)*							
National policies *(e.g., Federal Sustainable Development Act)*							
Provincial policies *(e.g., Ministry of Environment acts and/or policies)*							
Municipal policies *(i.e., city or town policy directions or priorities)*							
School board policies							
Policies in your setting *(e.g., budget mandates)*							
Other local policies *(e.g., Aboriginal priorities)*							
Other *(Please specify):*							

Please rate the extent to which the following have acted as drivers or barriers in implementing sustainability practices in your setting:

History and Resources	Strong Barrier	Somewhat of a Barrier	Neither Barrier nor Driver	Somewhat of a Driver	Strong Driver	Both a Driver and Barrier	I Don't Know
HISTORY:							
History of overall priorities in your setting							
History of sustainability initiatives in your setting							
Other *(Please specify):*							
RESOURCES:							
Sustainability office							
Internal funding *(e.g., government)*							
External funding *(e.g., community initiatives, organizations)*							
Desire to save money							
Technology and equipment							
Staffing *(e.g., number, quality)*							
Time *(e.g., availability)*							
Research on best practices							
Other *(Please specify):*							

a. In your experience, what is the most influential driver of implementing sustainability in practice in your setting and why?

b. In your experience, what is the most influential barrier of implementing sustainability in practice in your setting and why?

_____

_____

_____

_____

_____

9. In your experience, have any of the following perceptions hindered the implementation of sustainability in practice in your setting? *(Check all that apply)*

- ☐ Perceptions that sustainability is someone else's concern
- ☐ Feelings that individual actions cannot make a difference
- ☐ Lack of awareness about sustainability issues because individuals do not experience negative effects first hand
- ☐ Other *(Please specify)*: _____
- ☐ None of the above
- ☐ I don't know

SUSTAINABILITY POLICY DEVELOPMENT

This section of the survey asks about factors that may have influenced policy development. Policies that address sustainability could range from a mandate to incorporate sustainability within your setting to a policy that has a sustainability component, such as an academic plan. To participate in this part of the survey, you should have **some awareness** of how policies that address sustainability were developed. Please answer the questions to the **best of your knowledge** and in relation to **your entire work or study setting**, not just for the particular unit or department in which you work or study.

10. How knowledgeable are you of:

	Not at All	Somewhat	Moderately	Extremely
How policies that address sustainability in your setting **were developed**?				

If you answered "Not at All Knowledgeable," please skip to page 16, "Policy Effects"

The Influences of People and Networks on Policy Development

11. Thinking of the current policies that address sustainability in your setting, to what extent have the following individuals been involved in policy development?

	Not at all	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know	Not Applicable
Students						
Teachers/faculty						
Facilities workers/operations staff						
Sustainability officer/coordinator						
School administrators						
Families						
Public						
School board						
Ministry of Education						
Other *(Please specify)*:						

12. Do you agree that these were the right people to have this responsibility?

	Yes	No	I Don't Know	Not Applicable
Students				
Teachers/faculty				
Facilities workers/operations staff				
Sustainability officer/coordinator				
School administrators				
Families				
Public				
School board				
Ministry of education				
Other *(Please specify)*:				

a. If these were not the right people, then why not?

_____

_____

_____

_____

_____

13. Within your setting, to what extent do you think the following networks had an influence on the development of policies that address sustainability?

	Not at all	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
International networks *(e.g., UNESCO)*					
National networks *(e.g., of administrators, staff, or students)*					
Local networks *(e.g., municipality, school division, community groups)*					
Professional associations					
Conferences or seminars					
Other *(Please specify):*					

14. Within your setting, to what extent do you think the following media had an influence on the development of policies that address sustainability?

	Not at all	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
Scholarly publications *(e.g., books and/or journal articles)*					
Newspaper or magazine news stories					
Radio programming					
Television or films					
Web-based resources and social media					
Other *(Please specify):*					

The Influences of Community and Place on Policy Development

15. To your knowledge, when policies that address sustainability were developed within your setting were any of the following considered? *(Check all that apply)*

- ☐ Values within society that support sustainability
- ☐ Values within society that do no support sustainability
- ☐ Culture or expectations of surrounding community
- ☐ Indigenous knowledge and perspectives
- ☐ Political priorities regarding sustainability
- ☐ Community programs and initiatives
- ☐ Corporate partnerships
- ☐ Institutional buildings and grounds (e.g., building design, green space, common space)
- ☐ Surrounding local businesses or organizations
- ☐ Surrounding natural environment
- ☐ Other *(Please specify):* _____
- ☐ None of the above
- ☐ I don't know

The Influences of Other Policies on Policy Development

16. Within your setting, to what extent has the development of policies that address sustainability been influenced by existing policies at the following levels?

	Not at All	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
International *(e.g., Kyoto)*					
National *(e.g., Federal Sustainable Development Act)*					
Provincial *(e.g., Ministry of Environment acts, Ministry of Education policy)*					
Municipal *(e.g., municipal policy directions or priorities)*					
School board					
Policies in your setting *(e.g., budget mandates)*					
Other local policies *(e.g., Aboriginal priorities)*					
Other *(Please specify):*					

17. To your knowledge, have any of the following programs influenced the development of policies that address sustainability at your setting? *(Check all that apply)*

- ☐ Eco-schools program
- ☐ Brundtland schools program
- ☐ Green schools program
- ☐ Other *(Please specify):* _____
- ☐ My school does not have any sustainability certifications
- ☐ I don't know

18. In your experience, what is the most influential driver in developing policies that address sustainability in your setting and why?

_____

_____

_____

_____

_____

19. In your experience, what is the most influential barrier in developing policies that address sustainability in your setting and why?

_____

_____

_____

_____

_____

Policy Effects

This part of the survey asks about the influences of policies that address sustainability on practices. Policies that address sustainability could range from a mandate to incorporate sustainability within your setting to a policy that has a sustainability component, such as an academic plan. To participate in this part of the survey, you should have **some awareness** of how policies that address sustainability influence practices. Please answer the questions to the **best of your knowledge** and in relation to **your entire work or study setting**, not just for the particular unit or department in which you work or study.

20. How knowledgeable are you of:

	Not at All	Somewhat	Moderately	Extremely
How policies that address sustainability **influence practices**?	☐		☐	

If you answered "Not at All Knowledgeable," please skip to page 18, "Personal Information"

21. In general, to what extent do you think policies that address sustainability at your setting have been successful in influencing the adoption of sustainability initiatives?

○ Not at all successful ○ Slightly successful ○ Moderately successful ○ Extremely successful ○ I don't know

22. Overall, to what extent do you think the following areas of practice are influenced by policies that address sustainability at your setting?

Please refer to the following definitions when answering the next question:

	Definition
Management/ Governance	Overall vision, policies, leadership, and management of a school or institution (e.g., strategic plan, mission statement, budget)
Curriculum	Any academic programs, curriculum, or policies that incorporate sustainability (e.g., academic plan, sustainability course)
Operations/ Facilities	Related to physical buildings and facilities management (e.g., water or energy conservation, transportation, composting, operations plan)
Research	Partnerships related to research about sustainability (e.g., with post-secondary institutions, Non-governmental organizations, government agencies)
Community Outreach	Collaborations between the educational institution and community members or organizations in relation to sustainability initiatives (e.g., community gardens, community-based teaching)

	Not at All	To Some Extent	To a Moderate Extent	To a Large Extent	I Don't Know
Management/ governance	☐		☐		
Curriculum					
Operations/ facilities management					
Research					
Community outreach	☐		☐		☐

23. To your knowledge, have any evaluations been done that examined the impact of policies that address sustainability in your setting?

- ○ Yes
- ○ No
- ○ I don't know

a. If yes, please provide a brief description and URL:

_____

_____

_____

24. To what extent are you satisfied with the effects of existing policies that address sustainability in your setting?

- ○ Not at all satisfied
- ○ Slightly satisfied
- ○ Moderately satisfied
- ○ Extremely satisfied *(If extremely satisfied, skip to page 18, "Personal Information")*
- ○ I don't know

Please refer to the following definitions when answering the next question:

	Definition
Management/ Governance	Overall vision, policies, leadership, and management of a school or institution (e.g., strategic plan, mission statement, budget)
Curriculum	Any academic programs, curriculum, or policies that incorporate sustainability (e.g., academic plan, sustainability course)
Operations/ Facilities	Related to physical buildings and facilities management (e.g., water or energy conservation, transportation, composting, operations plan)
Research	Partnerships related to research about sustainability (e.g., with post-secondary institutions, Non-governmental organizations, government agencies)
Community Outreach	Collaborations between the educational institution and community members or organizations in relation to sustainability initiatives (e.g., community gardens, community-based teaching)

a. Within your setting, which areas of existing policies that address sustainability do you think need to be improved? *(Check all that apply)*

- ☐ Management/governance
- ☐ Curriculum
- ☐ Operations/facilities management
- ☐ Research
- ☐ Community outreach
- ☐ All areas are adequately covered by policies
- ☐ Other (*Please specify):*

_____

- ☐ I don't know

b. Within your setting, how do you think existing policies that address sustainability can be improved? *(Check all that apply)*

- ☐ Increase resources *(e.g., financial, supplies, human resources)*
- ☐ Provide greater specificity *(e.g., in goals, implementation plans)*
- ☐ Broaden focus *(e.g., focusing on multiple areas)*
- ☐ Set more challenging goals
- ☐ Stronger leadership
- ☐ The policy should remain as is
- ☐ Other *(Please specify):* _____
- ☐ I don't know

28. What is your age?

○ 15-19	○ 35-39	○ 55-59	○ 75-79
○ 20-24	○ 40-44	○ 60-64	○ 80-84
○ 25-29	○ 45-49	○ 65-69	○ 85-89
○ 30-34	○ 50-54	○ 70-74	○ 90 and older

29. What is the highest level of education you have completed?

○ Less than high school	○ Bachelor's degree
○ High school	○ Professional degree
○ Some post-secondary	○ Master's degree
○ College diploma	○ Doctoral degree

30. What is your gender identity?

- ○ Female
- ○ Male
- ○ Another gender identity (This may include Aboriginal Two-Spirit, Transgender, and other)
- ○ Decline to answer

31. Do you identify as: *(Check all that apply)*

- ☐ Indigenous
- ☐ Newcomer to Canada (in the last 10 years)
- ☐ Canadian
- ☐ Other *(Please specify)*: _____
- ☐ Decline to answer

32. Do you have any additional comments?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Thank you for taking the time to respond to this survey!

For more information about this survey
or the Sustainability and Education Policy Network and its research,
visit www.sepn.ca or contact Nicola Chopin, Project Manager at nicola.chopin@usask.ca

Appendix E: Interview Protocol

SEPN
The Sustainability and Education Policy Network

SITE ANALYSIS INTERVIEW PROTOCOL

Researcher Note:

- *Maintain focus throughout interview on institution for PSE (e.g., sustainability research at institution more broadly vs that of faculty being interviewed, broader than curriculum in one program, etc.). Ministry, SD, and School participants at K-12 may focus on policies and practices across those levels from their position within any one of the three.*

Researcher Note:

- *Interview begins with introductions. Then move to consent form - give them a minute to review and then ask if they have any questions. After participant and researcher sign both copies (interviewee keeps one), let participants know you are turning on recorders.*
- *Note that most provinces should include a recognition of only First Nations and Métis, and territories should include Inuit and First Nations in some cases. In phone interviews, modify first sentence of interview to say 'on which we are both located' vs. 'on which we are meeting.'*

Introduction

To open our discussion, we would like to acknowledge the traditional First Nations, Métis, and/or Inuit territories on which we are meeting.

We will start this interview with a survey that will ask you to evaluate your [setting's] work regarding sustainability policy and practice. We will then ask you some follow up questions. Please note that we will be following a formal structure of questions, as this format needs to be consistent across our nation-wide study. Please answer to the best of your knowledge, there are no right or wrong answers.

Here is an iPad [document if app not available] on which we'd like you to answer some questions to start. At the beginning you will see some basic information about sustainability, as well as demographic information - if you're able to take a few minutes now and complete this, that would be great.

In the next part, we're going to use a heat diagram to ask you about your experiences of how policies and practices developed in your setting. Would you describe yourself as more familiar with policy or with practice in this setting?

Researcher Note: If participant describes themselves as more familiar with practice, go to section 1; if policy, go to section 2. For participants that are less familiar with practice, use only the questions (and prompts, as needed) under Box 1. For participants that are less familiar with policy, use only the questions (and prompts, as needed) under Box 2. If a participant is familiar with both practice AND policy within a setting (e.g. Sustainability Officer, others) and time allows, can use full protocol for each of practice and policy.

Section 1: Sustainability Practices

Introduction to Heat Diagram

Researcher Note: For phone interviews, please go through each domain at a time, beginning with governance, curriculum, research, community outreach, operations, and other to enter their ratings and get any short examples.

To start, please rate your setting's activity in relation to sustainability practice across several domains using this diagram.

To explain the task a bit, we are defining "sustainability" as including, at minimum, consideration of the natural environment. When we use the word "practice," we mean any practices or activities in your setting that engage with sustainability (be they led by administration, faculty/teachers, students, community, etc.).

We'd like you to please rate your setting's activity in relation to existing practices that address sustainability across the domains of: overall governance, curriculum and teaching, research, community outreach, facilities operations, and 'other' - explanations of these domains are included on the diagram.

Please assign a number from 0-10 for sustainability practices in each of these areas, with '0' indicating little to no sustainability practice in that domain, what we are referring to as 'cool,' and '10' indicating a 'hot' domain of sustainability practice for your setting. Please also add any details of what you have in mind in giving that rating. In other words, types of practice initiatives you may be thinking of in that area.

These are your own ratings based on your experiences and impressions. If you're really not sure, you can simply indicate 'don't know.' Do you have any questions? Would you like clarification on any of the categories?

Questions for those 'Less Familiar' with Practice [replaces questions 1-3]

Box 1. Researcher Note: If the participant has selected practice as the context with which they are LESS familiar, ask them the following questions*. If the participant appears familiar with the practices described and time allows, include regular follow-up probes in relation to the questions below (from 'more familiar' section). Also include questions on 'cool' domain below unless time is short; then move on directly to Section 3: General.*

In your ratings diagram, can you please choose one of the 'hottest' rated domains to discuss in relation to practice? *[Ensure participant or researcher says out loud which domain they choose]*

- Can you tell us about your general impressions of practice in this domain?
- Is there a particular practice or practices that you were thinking of when you decided to give this rating?
- **Origins:** Do you know why your setting decided to begin this sustainability practice?
- **Mobility:** Are you aware of any practices or policies elsewhere that influenced its adoption (regionally, nationally, or internationally)?
- **Actors:** Can you tell us about any of the actors involved in this practice, champions or others?
- How successful has this practice been, in your estimation?

Can you now please choose one of the more 'cool' rated domains to discuss as an area with relatively low levels of practice?

- Can you tell us about your impressions of sustainability practice or lack thereof in this domain?
- What kinds of factors do you think have made the development of sustainability practice challenging in this domain?
- Do you have anything else to add on this topic, or otherwise in relation to practice, before we move on?

Questions for Domains with 'Hot' Ratings for those 'More Familiar' with Practice

Researcher Note: If the participant has selected practice as the context with which they are MORE familiar, please ask all of the following before moving on to Box 2 for policy.

1. In your ratings diagram, can you please choose one of the 'hottest' rated domains to discuss in relation to good practice? [Ensure participant or researcher says out loud which domain they choose]
   (a) Can you tell us about your general impressions of practice in this domain?
   (b) Is there a particular practice or practices that you were thinking of when you decided to give this rating?

2. **Practice Origins:** Can you please pick one of these practices to tell us about in some depth and I'll ask you some further questions on it.
   (a) **Drivers:**
      a. To your knowledge why did your setting decide to begin this sustainability practice?
      b. What influenced its development?
   (b) **Mobility:**
      a. Are you aware of any practices or policies elsewhere that influenced its adoption? For example, at another location or in another province or territory?
      b. What about national or international influences, for example through various networks, associations, or policy bodies?
   (c) **Actors:** Now I have some questions about any key people involved in developing this sustainability practice in your setting; people either based here or elsewhere:
      a. Were there any champions or leaders in moving it forward?
      b. Did anyone from outside your setting influence the development of the practice?
      c. Were there any resistors to this practice? Or perhaps some that had hesitations? How so?
      d. Do you know if students played a role in developing this practice? How so?
      e. What about faculty and staff?
      f. How would you describe the diversity of those involved, in terms of gender, race, or other forms of diversity?
   (d) **Emotions:** What emotions, if any, would you say accompanied the uptake of this practice - for example, excitement, trepidation, feelings of competition, stress, or other emotions, if any?
   (e) **Barriers:**
      a. Are you aware of any tensions or challenges in initiating or maintaining this practice?
      b. How about tensions or challenges in relation to any other, possibly competing, practices or policies?
   (f) **Supports:** Aside from those you've already mentioned, were there any other supports or factors involved in the initiation of this practice?
   (g) **Funding:**
      a. Do you know how this sustainability practice is funded, if applicable?
      b. Have there been any resource limitations in carrying it out?
      c. What would be needed to overcome these limitations?
   (h) **Temporal:** How long did it take to develop this practice?
   (i) **Outcomes:**
      a. How would you describe the influence of this practice overall in your setting?
      b. Who has been most and least affected or engaged by this practice?
      c. Have you noticed any unintended consequences or outcomes?

Questions for Domains with 'Cool' Ratings for those 'More Familiar' with Practice

3. Can you now please choose one of the more 'cool' rated domains to discuss as an area with relatively low levels of practice?
   (a) Can you tell us about your impressions of sustainability practice or lack thereof in this domain?
   (b) What kinds of factors do you think have made the development of sustainability practice challenging in this domain?
   (c) Do you have anything else to add on this topic, or otherwise in relation to practice, before we move on?

Section 2: Sustainability Policies

Introduction to Diagram

Researcher Note: For phone interviews, please go through each domain at a time, beginning with governance, curriculum, research, community outreach, operations, and other to enter their ratings and get any examples.

In this part of the interview, we're going to use the heat diagram to discuss how policy developed in your setting. To start, please rate your setting's activity in relation to sustainability policy across several domains using this diagram.

As a reminder, we are defining "sustainability" as including, at minimum, consideration of the natural environment. When we use the word "policy," we mean official texts produced or used by your [setting] that address sustainability (be it a policy, plan, strategy, or mandate). This may also include documents that guide teaching practice, such as required curriculum.

These are your own ratings based on your experiences and impressions. If you're really not sure, you can simply indicate 'don't know.' Do you have any questions? Would you like clarification on any of the categories?

Questions for those 'Less Familiar' with Policy [replaces questions 4-6]

Box 2. Researcher Note: If the participant has selected policy as the context with which they are LESS familiar, ask them the following questions*. If the participant appears familiar with the policies described and time allows, include regular follow-up probes in relation to the questions below (from 'more familiar' section). Also include questions on 'cool' domain below unless time is short; then move on directly to Section 3: General.*

In your ratings diagram, can you please choose one of the 'hottest' rated domains to discuss in relation to policy? [Ensure participant or researcher says out loud which domain they choose]

- Can you tell us about your general impressions of policy work in this domain?
- Is there a particular policy or polices that you were thinking of when you decided to give this rating?
- **Origins:** Do you know why your setting decided to create this sustainability policy?
- **Mobility:** Are you aware of any practices or policies elsewhere that influenced its adoption (regionally, nationally, or internationally)?
- **Actors:** Can you tell us about any of the actors involved, champions or others?
- How successful has this policy been, in your estimation?

In your ratings diagram, can you please choose one of the 'cool' rated domains to discuss as an area with relatively low levels of policy?

- Can you tell us about your impressions of policy work or lack thereof in this domain?

- What kinds of factors do you think have made the development of sustainability policy challenging in this domain?
- Anything else to add on this topic, or otherwise in relation to policy, before we move on?

Questions for Domains with 'Hot' Ratings for those 'More Familiar' with Policy

Researcher Note: If the participant has selected policy as the context with which they are MORE familiar, please ask all of the following before moving on to Box 1 for practice.

4. In your ratings diagram, can you please choose one of the hottest rated domains to discuss in relation to good policy?
   (a) Can you tell us about your general impressions of policy work in this domain?
   (b) Is there a particular policy or policies you were thinking of when you gave this rating?

5. **Policy Origins:** Can you pick one of these policies to tell us about in some depth and I'll ask you some further questions on it.
   (a) **Drivers:**
      a. To your knowledge why did your setting decide to create this policy?
      b. What influenced its development?
   (b) **Mobility:**
      a. Are you aware of any policies or practices elsewhere that influenced its adoption? For example, at another location or in another province or territory?
      b. What about national or international influences, for example through various networks, associations, or policy bodies?
   (c) **Actors:** Now I have some questions about any key people involved in developing this sustainability policy in your setting; people either based here or elsewhere:
      a. Were there any champions or leaders in moving it forward?
      b. Did anyone from outside your setting influence the development of the policy?
      c. Were there any resistors to this policy? Or perhaps some that had hesitations? How so?
      d. Do you know if students played a role in developing the policy? How so?
      e. What about faculty and staff?
      f. How would you describe the diversity of those involved, in terms of gender, race, or other forms of diversity?
   (d) **Emotions:** What emotions, if any, would you say accompanied the uptake of this policy - for example, excitement, trepidation, feelings of competition, stress, or other emotions, if any?
   (e) **Barriers:**
      a. Are you aware of any tensions or challenges in initiating or maintaining this practice?
      b. How about tensions or challenges in relation to any other, possibly competing, practices or policies?
   (f) **Supports:** Aside from those you've already mentioned, were there any other supports or factors involved in the initiation of this policy?
   (g) **Funding:**
      a. Do you know how this sustainability policy is funded, if applicable?
      b. Have there been any resource limitations in carrying it out?
      c. What would be needed to overcome these limitations?
   (h) **Temporal:** How long did it take to develop this policy?
   (i) **Outcomes:**
      a. How would you describe the influence of this policy overall in your setting?
      b. Who has been most and least affected or engaged by this policy?

Questions for Domains with 'Cool' Ratings for those 'More Familiar' with Policy

6. In your ratings diagram, can you please choose one of the 'cool' rated domains to discuss as an area with relatively low levels of policy?
   (a) Can you tell us about your impressions of policy work or lack thereof in this domain?
   (b) What kinds of factors do you think have made the development of sustainability policy challenging in this domain?
   (c) Anything else to add on this topic, or otherwise in relation to policy, before we move on?

Researcher Note: Return to section 1 (Practice), if participant started with section 2 (Policy)

Section 3: General

Researcher Note: Work to have at least 10 minutes remaining in interview at this point, can skip over cool and/or hot in second policy/practice area if needed to discuss below

Relationship of Policy and Practice

7. To your knowledge, are there relationships between the sustainability policies and sustainability practices we have talked about? For example, have the policies been drivers or barriers to practice or vice versa?

Reporting: Sustainability Assessment and Certifications

8. Are you aware of any kind of sustainability assessment, evaluation, or certification that takes place in your [setting]?

9. Are these assessment or certification details currently communicated? If so, how and to whom?

Section 4: Relations of Local Place to Policy and Practice

10. Moving on to some questions about place, do you think physical aspects of place (within this city, province, or another relevant scale) have influenced the approach to sustainability policy or practice in your setting - for example, the land of the setting, the surrounding geography, or buildings or other objects?

11. Do you think local culture has influenced the approach to sustainability policy or practice in your setting? How so?

12. (a) How would you describe the relationship between sustainability and Indigenous perspectives and priorities in your setting?
    (b) Can you provide examples of this relationship?

13. (a) What term do you think is most commonly used to refer to sustainability in your setting? *[Researcher note: If examples are needed for clarification, can provide examples of: environment, sustainability, sustainable development, land]*
    (b) Do you think the term commonly used is influenced by local context and/or more global influences?

Section 5: Moving Forward - Gaps and New Directions

14. And finally, some questions about new directions: what more do you think your [setting] should or could be doing to address sustainability practice or policy?

15. What resources and support do you think would be needed to address these gaps?

16. Is there anything else you would like to add in relation to sustainability policy or practice in your setting?

17. Are there any other key sustainability champions and/or critics of sustainability that we should be talking to as part of our study if possible?
    (a) Do you feel comfortable sharing their names with us?
    (b) If not, do you feel comfortable sharing our information with them?

18. Are there any documents or policies in particular that you think we should review as part of the study?
    (a) If so, why?
    (b) Can you provide them or direct us to where they can be found? *[Researcher note: Collect on memory stick at the time if possible]*

19. **ONLY** for student sustainability leader interviews:
    To close the interview, can you please tell me why and how you became involved in sustainability efforts in your setting?

Thank you for your time and for participating in this research project!

Appendix F: Heat Diagram Survey

Identifier: _____

SEPN
The Sustainability and Education Policy Network

HEAT DIAGRAM SURVEY

1. Which of the definitions below best matches your concept of sustainability?
   (Check all that apply)

   - ❑ Protecting or concerned with the natural environment
   - ❑ Interconnection between social, environmental, and economic concerns
   - ❑ Meeting the needs of the present as well as future generations
   - ❑ Based in Indigenous knowledge and worldviews
   - ❑ A focus on a sustainable economy
   - ❑ Other (Please specify):

2. Using the above definition that you have selected, in your view, how important is sustainability to your institution?

   ❑ Not at all ❑ To some extent ❑ To a moderate extent ❑ To a large extent ❑ I don't know

3. Using the above definition that you have selected, how committed are you to furthering sustainability?

   ❑ Not at all ❑ To some extent ❑ To a moderate extent ❑ To a large extent ❑ I don't know

4. What is your age?

   ❑ <15 ❑ 15-19 ❑ 20-24 ❑ 25-29 ❑ 30-34 ❑ 35-39 ❑ 40-44 ❑ 45-49
   ❑ 50-54 ❑ 55-59 ❑ 60-64 ❑ 65-69 ❑ 70-74 ❑ 75-79 ❑ 80-84 ❑ 85+

5. What is your gender identity?

   ❑ Female ❑ Male ❑ Another gender identity

6. Do you identify as *(Check all that apply)*:

   - ❑ Indigenous
   - ❑ Canadian
   - ❑ Decline to answer
   - ❑ Newcomer to Canada (in the last 10 years)
   - ❑ Other (Please specify): _____

7. Do you work or study here?

   - ❑ Work
     Job Title: _____
   - ❑ Study
     Program: _____
   - ❑ Other (Please specify) _____

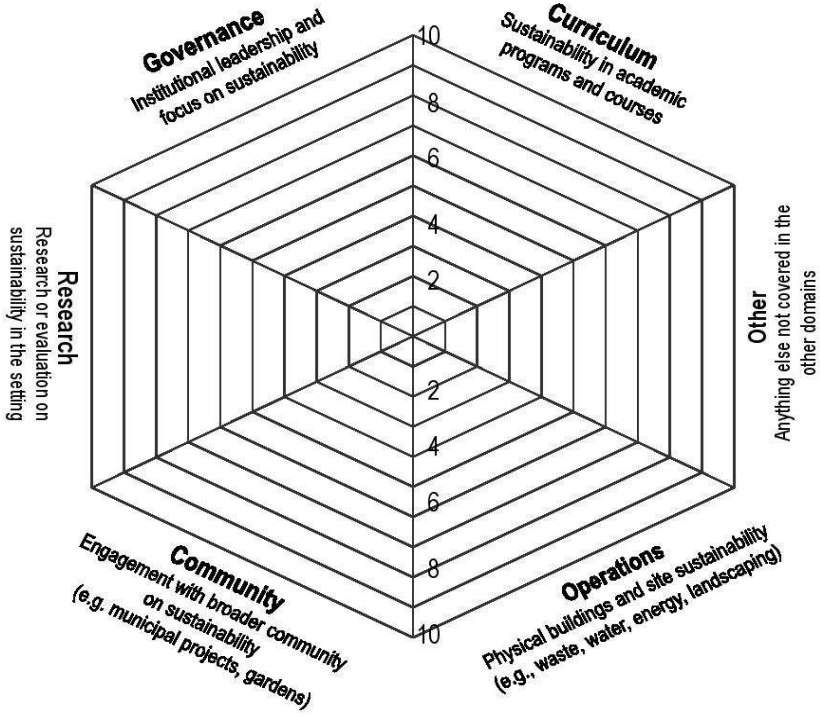
Heat Diagram: Sustainability Practice

SEPN
The Sustainability and Education Policy Network

Governance Rating:
Practice Example:

Research Rating:
Practice Example:

Community Rating:
Practice Example:



Sustainability Uptake Ratings Key:
0-2 Little to no uptake
3-5 Medium levels of uptake
6-8 High levels of uptake
9-10 Very high levels of uptake

Curriculum Rating:
Practice Example:

Other Rating:
Practice Example:

Operations Rating:
Practice Example:

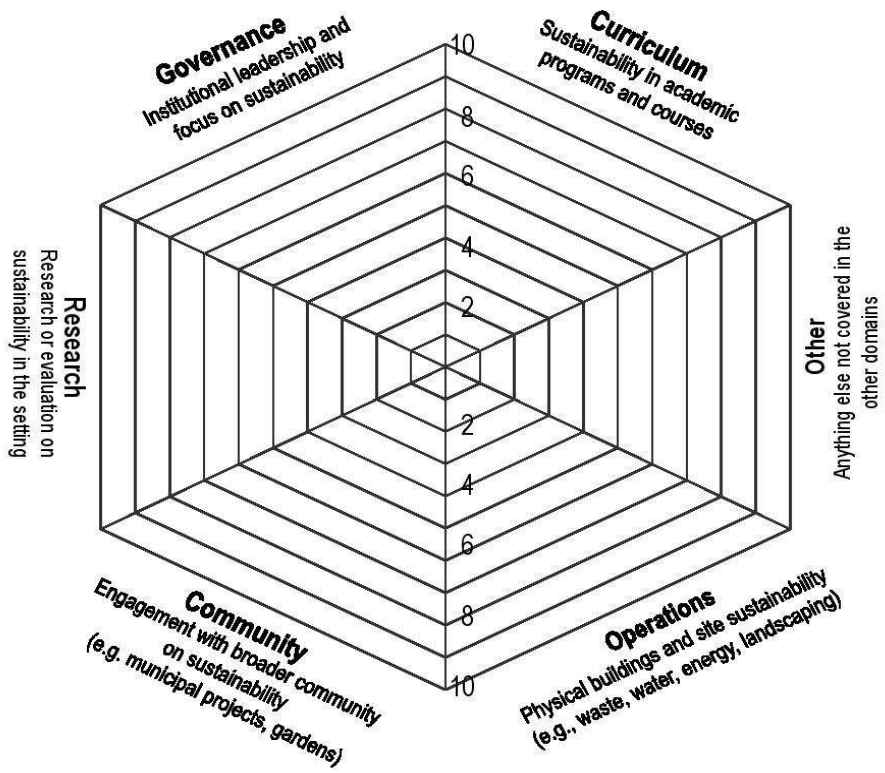
Heat Diagram: Sustainability Policy

SEPN
The Sustainability and Education Policy Network

Governance Rating:
Policy Example:

Research Rating:
Policy Example:

Community Rating:
Policy Example:



Sustainability Uptake Ratings Key:
0-2 Little to no uptake
3-5 Medium levels of uptake
6-8 High levels of uptake
9-10 Very high levels of uptake

Curriculum Rating:
Policy Example:

Other Rating:
Policy Example:

Operations Rating:
Policy Example:

Appendix G: Recommendations for Policy Makers Regarding Partnerships

1. Identify local super-connectors and request suggestions from them to ensure policy supports the local context.
2. Provide examples in curricula of ways that partnerships could help students and teachers meet ESE outcomes.
3. Create discretionary guidelines to establish clarity regarding which partners are appropriate, and to what extent the partner may promote, advertise, or influence learning content through a partnership.
4. Create an inventory of partners that have a clear plan for how they are able to best support teachers and students.
5. Structure a framework to guide the establishment of a new relationship, encouraging the consideration of questions like:
    a) What will each party contribute to partnership activities?
    b) What does each party hope to gain through partnership?
    c) What is the desired outcome for students?
    d) How often is contact expected and by what means?
    e) Over what span of time is contact expected to continue?
    f) At what point(s) will progress be assessed?
6. Encourage multi-faceted, long-term, and local partnerships, as these features are seen to offer more meaningful outcomes.
7. Ensure newly developed policy is not burdensome to teachers, but rather supports partnerships by offering guidance and structure.